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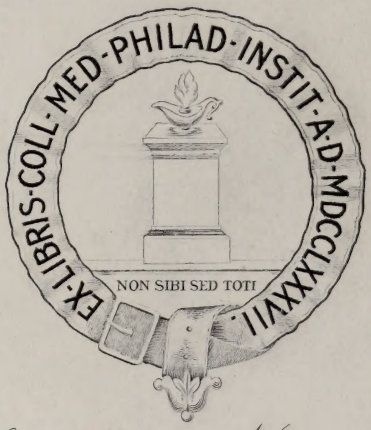

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SUMMARY

OF THE

TRANSACTIONS

OF THE

COLLEGE OF PHYSICIANS

OF

PHILADELPHIA.

VOLUME III.—NEW SERIES.

FROM APRIL, 1856, TO DECEMBER, 1862, INCLUSIVE.

NON SIBI SED TOTI.

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1863.

Moreton Stille.

SUMMARY

OF THE

TRANSACTIONS OF THE

COLLEGE OF PHYSICIANS

OF PHILADELPHIA.

FROM APRIL 2, 1856, TO JUNE 4, 1856, INCLUSIVE.

Stated Meeting, April 2, 1856.

Dr. BACHE, Vice-President, in the chair.

Present, twenty-five Fellows.

R. K. SMITH, M. D., and Wm. N. JOHNSON, M. D., were elected Fellows of the College.

Dr. HOLLINGSWORTH then read the following:—

MEMOIR OF MORETON STILLÉ, M. D.

MORETON STILLÉ, the youngest son of John and Maria Stillé, was born in the city of Philadelphia, on the 27th of October, 1822. Upon his father's side the family was of Swedish origin, its earliest member, of whom anything positively is known, being Olof Person Stillé, who emigrated to this country, it is supposed, with the *first* Swedish Colony in the year 1638, under a passport or letter of recommendation from Eric Bielke, Lord of Peningby and Nyñas, in Upland, Sweden. Shortly after their landing on the banks of the Delaware, the Swedes established numerous settlements, principally on the western banks of the river, then considered a part of Virginia. Some of these settlements were places of considerable note in their day, and on one of them, Pasa-

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yung, afterwards purchased by William Penn from the sons of the Commander Sven, commonly called the Swansons, now stands the city of Philadelphia. Olof Stillé's place of residence, marked on Lindstrom's map as "Stillé's land," was situated on what is at present termed "the neck," and is the only homestead, Mr. Watson informs us, now known of any of the Swedish families whose names are on the list taken in the year 1693, for the information of William Penn. Its Indian name was *Techoherassi*, "being a place on the Schuylkill River, surrounded with water like an island." It is again spoken of as a small plantation built by freemen, and much frequented by the Indians, who gave Mr. Stillé the name of the "man with the black beard."

Another Stillé, probably a son of Olof, is honorably mentioned by the late venerable Mr. Duponceau, as present among the number assembled to greet the proprietary William Penn, on his memorable landing at New Castle, in the year 1682. The tombstones of many members of the family still exist in the burying ground of Gloria Dei Church, in Philadelphia, or the Swedes' Church, as it is commonly called.

The early historians represent the Swedes as a quiet, industrious people, who chiefly occupied themselves with agriculture. Their respect for religion is evinced by the fact that they had three churches erected when Penn arrived, the ministers of which were regularly supplied them by their bishops in Sweden. It is to their credit, also, that although the title to the lands on which they settled was ceded to them by the unfortunate Charles the 1st, they still thought proper to purchase them from the Indians who dwelt upon them.

On the maternal side, Moreton was descended from a family of the Wagners, one of whom came over to this country and settled as a clergyman in Reading, Pennsylvania, in the year 1759. Mr. Wagner's father and grandfather were both of them clergymen, also; his great-grandfather was Tobias Wagner, Chancellor of the University of Tübingen in 1662. In the *Biographie Universelle*, vol. I. p. 26, he is described as "un des Théologiens les plus habiles et les plus féconds du dix septième siècle," one of the most skilful and fertile theologians of the seventeenth century. Few Americans can look back to a longer line of ancestry, settled in this country, than the family to which our late colleague be-

longed; and the tenacity with which they have clung to the spot where their first ancestor settled, is, in our country at least, somewhat remarkable.

Moreton Stillé began his school education with the Rev. Mr. Steel, at Abingdon, in 1831. In the following year, he was placed at Edge Hill Seminary, Princeton, under the care of Mr. Patton, who was afterwards succeeded by Mr. Wines, and at this institution, he remained until the year 1836. His industry and capacity for learning, judging from his teacher's reports, some of which still remain, were considerable, and secured him a high place in his class. On leaving Edge Hill, he became a pupil of Mr. Hurlbut's school, in Philadelphia, where he continued until 1838, when he entered the Sophomore class of the University of Pennsylvania. During the whole period of his collegiate course he bore an excellent character, and was much respected by his fellow students for his gentlemanly bearing and conduct; but although a good student and finally carrying off an honor, he took in reality more interest in the proceedings of the Literary Society to which he belonged, the Philomathean, than in his proper collegiate duties. In 1841, he received his degree of Bachelor of Arts, on which occasion he delivered an oration upon Ancient Mexico.

Having chosen the profession of Medicine as most congenial to his tastes, on the 17th of July, 1841, he began its study with his brother, Dr. Alfred Stillé. How admirably Dr Stillé was qualified for the duties of a teacher, and how faithfully he performed them, it may not be proper in me to speak of, on this occasion; it is but justice to remark, however, that the even more than fraternal affection with which Moreton regarded him in after years, was greatly due to the feeling he conceived for him when his pupil. How strong this feeling was, must have been apparent to all who knew him, and is very warmly evidenced in all his letters from abroad, to which I have had access.

In the following October, Moreton matriculated in the Medical Department of the University of Pennsylvania. During the whole course of his attendance upon lectures, he was an attentive and even zealous student; the profitable manner in which his studies were pursued, is evinced in the admirable Thesis he presented for his degree, which received the highest compliment that

can be paid to a student's effort, the unanimous request of the faculty for its publication. He obtained his degree of M. D. in the Spring of 1844.

In the month of October of the same year, he embarked for Liverpool, with the intention of remaining three years abroad. It may not be uninteresting to observe with what serious, and, at the same time, elevated sentiments, he commenced the journey which was to occupy a period in many respects the most eventful and important in his history. In the month of August, he thus writes to his brother Charles, who was then in Europe:—

"I feel as if I were just commencing life in earnest; as if I were just now setting out upon its untried sea; as if I had yet to buffet its storms or feel its prosperous breezes. Indifferent to the present, I live only for the future; upon it my most earnest gaze is fixed, and I strive to enter its ever receding portals, to grasp its cloudy phantoms, its beckoning illusions. But, for all this, I am no dreamer. I would not with closed eyes lie upon the stream, and, the sport of its uncertain waves, be carried hither and thither. 'Conduct is fate,' and every man may make his future if he will. I go abroad with the determination, made neither hastily nor without reflection, to be 'up and doing,' and to profit by the privilege I enjoy to the utmost. If I know myself, I shall not be content with a place in the crowded middle ranks of the profession."

His plans were to pass some time first in Dublin, that he might avail himself of the numerous advantages it then offered to the medical student, but more especially to improve himself in physical diagnosis, for the cultivation of which many of its teachers were justly celebrated. The remainder of his time abroad, he expected to pass principally in Paris. Unforeseen circumstances, as will be shown hereafter, caused him to modify his plans, as his last winter was spent in Vienna. During his absence he regularly corresponded with his brother Alfred, and as his letters afford an excellent insight into his character, as well as exhibit the manner in which his time was occupied whilst in Europe, I shall quote from them somewhat largely. It should be remembered that at this period he was just entering his twenty-third year, and when the age at which they were written is considered, their good sense, easy, clear expression, and precision of thought, must command the admiration of all who read them.

Under date of December 1st, 1844, having been in Dublin about a month, he writes as follows:—

"In my last letter I mentioned that I had commenced my visits to the Meath Hospital. When Dr. Graves was attached to it, his clinical system was carried out with the greatest minuteness and care. Every patient was carefully examined first by the pupil, and then by the physician, who explained and corrected the mistakes of the other, supplied his omissions, and drew his attention to different points of diagnosis. The pupil was then obliged to write out the history of the case, and paste it on a board at the head of the bed, noting on it the progress from day to day. These notes formed the theme of the lectures, and in their preparation, from the patient being constantly under the eye of the physician, the pupil had to be extremely accurate. Dr. Stokes does not do this. His examinations are more directed to finding out what the disease is, in the shortest way, and in noting the *curiosities* of it, than to a patient study of its phenomena." "When he gets a case that presents some striking features, or about which there is a good deal of obscurity, his admirable powers of diagnosis and discriminating judgment show to the greatest advantage. His lectures are delivered twice in the week, and are extremely interesting and instructive. These lectures I would not miss for a great deal; I always take notes of them, and write them out as fully as I can when I go home. Sometimes when examining a patient, an interesting point will present itself, and Dr. Stokes will thereupon take a pinch of snuff very thoughtfully, take me by the arm, and walk over to the fireplace and commence forthwith a long talk about the case. On these occasions I resign myself very contentedly to listen, and rather prefer to ask questions than to originate ideas. I have felt rather awkwardly at times at being asked my opinion about what, alas! from my want of practical knowledge, I could say but little, but have generally managed to get off very well, by saying what I knew and no more."

"I have been actively engaged since the beginning of my attendance, in examining cases for myself, accustoming my ear to auscultatory sounds, and my fingers to percussion and exploration, and familiarizing myself with the mode of inquiring into the history of the progress of diseases. I have now under my care four beds, and will increase the number as soon as any interesting cases come in." Again he observes: "Phthisis, pneumonia, rheumatism and diabetes are the diseases I have now under my care, and of which I have notes. I do not, however, confine myself to these, but, when I have time, observe others. I

believe, however, as you have often told me, that there is more to be learned by careful examination of a few cases than by a superficial observation of a larger number." "Besides the Meath, I have taken the ticket of the Dublin Lying-in Hospital, the most extensive institution of the kind in the city. It contains 140 beds, and has fifteen of them appropriated to diseases of the uterus, &c. I am on duty there once a week, and as I do not wish to let anything interfere with my hours at the Meath, selected the night time; so I remain at my post from 9 P. M. to 9 A. M. Women are coming in at all times of the night and day, and there are about 2500 delivered *per annum*.

"I shall avail myself of the lectures which are generally delivered in the afternoon at the medical schools. Of these Dr. Harrison on anatomy, with constant reference to comparative anatomy, Corrigan on practice, and Montgomery on midwifery, are those which I would care most to hear. But after all, I can go but irregularly, as I would rather devote much of this time to reading. Then my German lessons come three times a week, and I find that without very careful study and practice, I shall get on but slowly. My hours are arranged thus: Rise at half past 7, which is with the sun, and will soon be before it; breakfast at 8; *Meath Hospital* from $8\frac{1}{2}$ to 10 on Mondays, Wednesdays, and Fridays, and from $8\frac{1}{2}$ to $11\frac{1}{2}$ on Tuesdays, Thursdays, and Saturdays; *Lying-in Hospital* from $10\frac{1}{4}$ to $11\frac{1}{2}$ on Mondays, Wednesdays, and Fridays; *writing notes* $\frac{1}{4}$ before 12 to 1 o'clock, Tuesdays, Thursdays, and Saturdays; *study, lectures* and visiting $11\frac{1}{2}$ to 5, Mondays, Wednesdays, and Fridays; *German* $1\frac{1}{4}$ and $2\frac{1}{4}$, Tuesdays, Thursdays, and Saturdays; *study*, &c., $2\frac{1}{4}$ to 5, Tuesdays, Thursdays, and Saturdays; dinner, from 5 to 6; medical and miscellaneous reading, German exercises, *cup of tea* and musing on absent friends or writing to them till bed-time, from which, till Kitty knocks at the door in the morning, the sole occupation is *sleep*. Thus, my dear brother, you have my distribution of time. You see the morning's occupations are strictly fixed; those of the latter part of the day are not so, but I try to make the most of it."

Dec. 31. "The circle in which I visit is but a small, although a very agreeable one, but the truth is, I find but little time for visiting without neglecting other duties which I cannot afford to pass over. I attend to my duties every morning at the Meath, and am usually the first on the ground, examining my patients long before Dr. Stokes makes his appearance. I have now gained some familiarity with the ordinary run of pneumonia, phthisis, bronchitis and typhus, and have also some patients in the chronic ward." (In a subsequent part of the same letter, he says): "The attendance upon these different institutions," alluding to the Meath, the Lying-in Hospital, and the Pitt St.

Dispensary for Diseases of Children, "the necessary reading to enable me to profit by what I see, and a faithful study of my German lessons, occupy my time fully." "I forgot to mention that I also attend regularly the weekly meetings of the Pathological Society, where all the interesting cases that die in the hospitals are recounted, and the specimens explained by the most eminent men in the profession, such as Stokes, Corrigan, Law, O'Ferrall, &c. The Obstetrical and Surgical societies meet once every two weeks; to these Dr. Churchill has taken me, and I expect to attend them regularly."

In his next letter, dated January 15th, he gives a very particular and interesting account of the system adopted for supporting the poor in Ireland, and describes his visits to two of the *Unions*.

"I went a few evenings ago," he adds, "to the meeting of the Surgical Society at the Royal College of Surgeons, and had the pleasure of hearing, among other interesting communications, an account from Sir Philip Crampton of Amussat's operation for artificial anus, which he witnessed when in Paris. Sir Philip is nearly 70 years of age, but straight as a young man, hale and hearty. He is very active, and, it is said, hunts three days in the week. He dwelt a long while upon the admirable manner in which the operation was performed by M. Amussat, and inculcated strongly his opinion of its feasibility and propriety. He said he could never forgive himself for having allowed certain cases of stricture of the colon, which had fallen under his observation, to die without having first attempted the operation."

Towards the latter end of February, Dr. Stillé left Dublin for London. His time had been so profitably and pleasantly spent whilst in Dublin, where he had been stationary for nearly four months, that he left it with much regret. The circle of society into which he was admitted was not only refined and intellectual, but for one constituted as he was, possessed even a higher attraction in the ease and informality of its intercourse. He had also become acquainted with several of its most distinguished physicians, among whom were Drs. Stokes, Graves, Churchill, Hamilton, Law and McDonnell, from all of whom he received many civilities and attentions. He was, in particular, treated with marked kindness by Dr. Stokes, who evidently appreciated his good sense, and the earnestness with which he devoted him-

self to his studies. In his last letter from Dublin, he mentions with pride that for two of his most precious and flattering letters of introduction, to Dr. Todd, of London, and M. Louis, of Paris, he was indebted to that gentleman. His letters warmly and gratefully acknowledge all these attentions, the more valued and felt undoubtedly by him from his being a stranger there. To Dr. Stokes, into whose society he was much thrown, from his daily attendance at the hospital, he had become much attached, and his correspondence gives frequent utterance of the enthusiastic admiration in which he held that great physician's character.

"The more I see of him," he says, on one occasion, "the greater is my respect for his opinions and esteem for his character. In him the quick perceptions of genius are moderated by a wise discretion; if he has to pronounce an unfavorable prognosis, his voice is tender with regret, and the hand that detects so surely the fatal and lurking disease is just as ready to extend comfort to the sufferer and surround the dying couch with all that can make the patient's downward path less dreary and painful."

His next letter is dated London, March 2d, whence he thus writes:—

"I regret that I shall not be able in this, to give you an account of the manner in which my time here will be occupied. I have wished in the first place to look around me, to see in what direction I should pursue my studies. Wherever it shall be, they must of course be of a less steady character than in Dublin, but I think that by seeing the practice of the most eminent men in the different hospitals, attending their clinical lectures, learning their opinions in conversation, visiting the various museums and extensive collections of specimens of morbid structure, my time will not be unprofitably spent. I shall also visit particularly the London Fever Hospital, and will endeavor to get a systematic history of a few cases of the disease. I hoped to have been able to study urinary diseases as a specialty here, but am afraid the opportunity is not so good as I had been led to expect."

The remainder of the letter is taken up with an account of the doctrines held in Dublin, regarding the cause of the first sound of the heart; after stating which, he says:—

"The opinion in Dublin is, as I have said, universal, that the first sound and impulse occur during the systole of the heart, the second during

its diastole. As to the physical cause of the sounds, there probably exists some difference of opinion. Dr. Stokes believes the first sound to be due 'wholly and entirely' to the muscular contraction of the ventricles—for the reason that exactly the same sound can be heard by placing the stethoscope on any other muscle during contraction."

April 2. "I soon saw, after my arrival here, that it would not be possible to undertake any systematic course of study; it is the fag-end of the season, and energy seems to have forsaken every one connected with the hospitals."

The reception he met with from some of the London physicians was discouraging in the extreme.

"How it may be of Englishmen generally," he says, "I know not, but certainly a letter of introduction to a London physician is not sufficient to melt the ice that encases his heart, and warm him to a manifestation of even common courtesy. In Dublin a man has only to let it be known that he is a stranger, to be welcomed with outstretched hands and made an honorable guest at many a hospitable board. In London he is looked upon almost as an intruder, is coldly scanned from top to toe, and even the external seeming of politeness is disregarded."

There were several exceptions, however, to this want of courtesy, as the following extract will show.

"My letters to Drs. Todd, Murphy, and Marshall Hall," the latter kindly given him by Dr. Shattuck, of Boston, "I have delivered. I can only say at present, that I have been delighted with the reception they have given me, and with the disposition they have shown to further my plans. I shall try to see a great deal of Dr. Todd; he has been very kind to me; I have been round his hospital, and heard him lecture, and am anxious to see more of him."

Of Dr. Hall's kindness to him, in particular, he frequently speaks:—

"He is always," he remarks on one occasion, "wanting to know what he can do for me. He gave me, among other things, an introduction to the meetings of the London Medico-Chirurgical Society, which are held every fortnight, and where I have an opportunity of seeing most of the eminent men of London, and hearing their views on important points which arise in the discussion which follows the reading of a paper. Last Tuesday a paper was read upon the minute structure of the lung, and the pathology of tubercle; this gave rise to an animated debate in

which Drs. Williams, Hodgkin, Golding Bird, and others whose names I did not know, took part. In this way I get a very useful epitome of the current opinions of the day, as well as of those held by the speakers themselves. I asked Marshall Hall for an introduction to Sir Alexander Morrison, who is physician of the Bethlehem Lunatic Asylum, as I wished to see that famous establishment. He gave it to me most willingly, and I went over the whole institution with Sir Alexander, who took great pains to show me everything interesting about it. There is a criminal department in it, where those persons are confined who have escaped the penalty of their crimes on the plea of insanity."

Among the many visits he made to the institutions of London was one to the Smallpox Hospital in company with Dr. Gregory. He appears to have been a good deal surprised at what he heard from that gentleman, particularly as regards the mortality of smallpox after vaccination. His remarks are entirely too extended to extract; the omission of them is of little consequence, however, as Dr. Gregory's views of the superior advantages of inoculation over vaccination are well known to you all through his publications.

Early in May, Dr. Stillé left London and made a trip to the West of England and Wales, revisited Dublin, and returned to London, passing through Glasgow, Edinburgh and York by the way. During the summer he travelled through Holland, the Rhineland, and Switzerland, arriving at Paris in the middle of September. Of his movements there, he thus writes his brother:—

"To-day I called on M. Barth, as the person from whom I would be apt to derive the most correct information and the best advice, and presented your letter to him. Much to my regret, I learned from him that M. Louis merely visited the wards of Beaujon, without giving any bedside lectures, and that the law of which I spoke to you last summer, prohibiting the *internes* from giving courses was still strictly enforced. The present time is moreover vacation, and there is but little doing." "M. Barth commences in a few days a course of demonstrations in Pathological Anatomy: the *interne* at St. Louis, who has been there a long while, leaves on the 1st of January, to make room for a new hand, and Ricord's *interne* does the same. I will probably, therefore, at least commence with these three, in order that I may have something to do. To tell the truth, I seem to have been, for the last few days, thrown en-

tirely off my balance, and there is nothing I so strongly desire as to have my mind occupied in something that will make it think."

Sept. 30. "I have now much less time at my disposal than when I last wrote, and I feel a pleasure in saying so that can only be understood by one who has like myself remitted for so long a time any regular employment. I have a certain enjoyment in counting over my hours and in saying to myself, such and such are usefully occupied."

"The Hôpital du Midi and St. Louis are, as you know, wide enough apart, and it would be hard to find a situation convenient to both. I go to the first, three times a week, at 7 A. M., to the other at 11 A. M., five times in the week. Besides these, I have Barth on Pathological Anatomy at the Ecole Pratique, three times a week, at 2 P. M., and Ribail on Bandages every day at 4 P. M. All these courses will be finished before the cold weather sets in, and allow me in the winter to devote myself to the hospitals in the neighborhood. M. Valleix tells me it is probable Louis will be recalled to Hôtel Dieu in January, a consummation devoutly to be wished. The two *internes* at Ricord's Hospital and St. Louis are both excellent fellows, well versed in their respective subjects, and capable of giving admirable courses."

Oct. 28. "I have not yet finished the courses I began when I started here; but they will probably terminate in a fortnight. I shall then commence my attendance upon one or more of the hospitals, and enter more seriously upon the study of General Pathology. In addition, a course with Sichel or with the *interne* of the Hôpital des Enfans Malades will give me enough to do till January. Towards the close of the year I will be able to know more definitely whether or not I may expect M. Louis to be transferred to Hôtel Dieu. If he is not, I can always, according to your advice, move to the neighborhood of Beaujon, and devote myself exclusively to its wards."

November 30. "I am attending Chomel's Clinical Lectures, and Trousseau at the Hôpital Necker. I find it impossible from the number of students, however, to study individual cases in Chomel's wards, and am obliged to content myself with his lectures."

He mentions, also, that he was taking a second course on Pathological Anatomy with M. Barth.

In answer to a letter of his brother, who requested him to procure a copy of a memoir presented by himself to the Medical Society of Observation in 1837, he writes:—

"I am glad to have had the opportunity of seeing this comparative table of the fevers, especially as it confirms my own observations made

last winter in Dublin. I saw some 15 cases at the Meath Hospital of typhus in persons of all ages, but no case of what we would call typhoid at home. The only difference that strikes me at present between your observations and mine, is, that the eruption of petechiæ was the exception, and that it was equally well marked in the mild or severe cases, whenever it occurred. Dr. Stokes does not consider it an unfavorable sign. I do not know whether you are aware of Dr. Stokes' investigations regarding the heart in typhus. He calls it *typhoid softening;* it is not constant. The color is livid, cohesion very much impaired and the muscular structure homogeneous and infiltrated with matter, which for want of a better name he calls *gelatinous* or *viscous.* No traces of inflammation of either pericardium or endocardium are to be found."

The rest of his letter is almost exclusively taken up with a description of the diagnostic signs by which this condition of the heart may be recognized. They are very clearly and accurately described, but, as their recapitulation would occupy more space than I can well afford at present, I am obliged to omit it. The subject, moreover, is fully treated of in Chapter VII. of Dr. Stokes' admirable treatise on the "Diseases of the Heart and the Aorta," under the head of "The Condition of the Heart in Typhus Fever."

"I have already told you," he continues, "that I was not as actively engaged as I could wish in medical study for the last month. I have been limited to attendance upon Louis's visit and Chomel's lectures. Admittance at any other time than the visit has been impossible; they are vastly more strict than when you were here. In consequence of this, I have made no attempt to become a member of the Medical Society of Observation—as without the privilege of making observations, of course I could not have fitted myself for that honor."

Finding that he could not pursue his studies to as much advantage in Paris as he had anticipated, Dr. Stillé left that city in March, 1846, with the determination of passing the next winter in Vienna. The intervening time was employed in travelling through Italy, Germany, and Sweden. From Copenhagen he writes thus:—

"During my passage through Germany, I visited the hospitals of Munich, Nuremburg, and Hamburg, and also Meckel's anatomical museum at Halle. This last disappointed me very much. It contains a

very good collection of comparative anatomy, but the whole of it is crowded, dirty and neglected. In the midst of the bones and macerating preparations, I found the prosector, Dr. Mauthner, a pupil of the late Meckel, who interested himself very actively in showing me everything. Among the curiosities he exhibited and drew from its bottle that I might inspect it, was the heart of a former professor of the University, containing an opening between the ventricles fully an inch in all its diameters. No morbus ceruleus—but subject to palpitations which ceded to the use of vinous stimulants. The skeleton of the elder Meckel is preserved (according to his own wish), in a separate closed case."

Dr. Stillé reached Vienna on the 1st of October, and immediately commenced his attendance upon the daily *post-mortem* examinations at the hospital.

"Within a few days," he remarks, "Rokitansky commenced his private course on Pathological Anatomy. The manner of conducting it is thus: We take turns in making a *post-mortem* examination every morning, and the one who makes it describes everything as he proceeds under the direction of the professor. The most remarkable specimens that have been taken from the bodies opened are then exhibited and described by Rokitansky, after which we adjourn to the museum and hear from him a systematic course on Pathological Anatomy, illustrated by the morbid specimens therein contained. I can only remark here in passing that the instruction is the most complete and thorough I have yet witnessed."

Nov. 7. "I rise at 7, and take my breakfast in my room—after breakfast I go at once to the hospital—a walk of some 10 minutes—and arrive there in time to attend Skoda's clinic, which begins at 8 and lasts until 10. After the clinic I go to the dead house and am engaged with Rokitansky till 12. I then return to my room or to the Medical Reading Room, and until 2 o'clock read on medicine. * * * The medical clinic of Skoda is entirely separate from the general wards of the hospital. It is in a separate building in two large rooms, and contains 28 beds, into which the most interesting cases are brought. I cannot express too highly my gratification with the manner in which this clinic is conducted. It is in fact the *beau-idéal* of clinical instruction. Each patient is placed under the care of an advanced student (*ordinarius*)—the *ordinarius* writes on the black-board, at the head of the bed, the name, sex, age, profession, &c., of the patient, the diet and the number of evacuations, alvine and urinary. He is obliged also to write out on printed sheets under appropriate heads, the previous history of the

case, and all the subjective and objective symptoms at the time of entry, and the medical and surgical treatment, the prescriptions being written out at length. After the diagnosis has been made out by the Professor, the name of the disease is written in large characters in the middle of the black-board, so that one on entering the ward can at once see what cases are to be found there, and if he wishes to investigate any one, can do so without addressing a word to the patient, for the whole history and diurnal phases of the disease are there already written out for him with the greatest precision. At the visit of the professor, the *ordinarius* stands opposite to him at the head of the bed, and he must be a man of no little tact and acquirement who can answer readily and satisfactorily the searching examination he is bound to undergo. He may not reply negligently or vaguely, but must show how much or how little he knows. All the remarks that the student writes on the paper at the head of the bed are in Latin, and the conversation between the professor and him is carried on in the same language. This I found difficult at first to understand, chiefly on account of the German pronunciation, but I can now make it out very well. In attending this clinic and Rokitansky's demonstrations and lectures, I enjoy advantages that I have yet nowhere found, and which I believe are to be found in no other European school whatever."

Nov. 22. "I sent you by the last steamer an account of my medical occupations—they continue still the same as before, with the addition of an auscultatory course with Skoda's assistant. I have plenty of employment cut out for the winter, and feel confident of deriving more benefit from my residence here in a medical point of view than I have obtained either in Paris or Dublin. In one respect the clinic offers peculiar advantages for studying disease, as Skoda's Therapeia is very limited. At present, for example, there are in this clinic, two cases of pneumonia, three of pleurisy, one of puerperal peritonitis, and several cases of typhus, the treatment in all of which, we at home would call perfectly nugatory, for neither venesection, cupping, blistering, or calomel were employed in any one, nor any heroic remedies. A few Dover's powders, decoction of althæa, oleaginous mixture, and in the typhus cases, sulphuric acid, constituted the whole pharmacopœia. Such is Skoda's habitual treatment in acute diseases, and he is very successful." "If we find that patients may recover as well and even better from many grave diseases without the employment of active medicines and painful applications, or in other words, that nature is capable, unassisted, of retracing the steps of a morbid progress, it is certainly irrational for the physician to volunteer his officious aid, which after all may only harass and indeed arrest her march. The great question then

is, when is his interference called for, and to what extent is it authorized? and this can only be obtained by an impartial retrospect of the action of his remedies and a careful study of those cases where nature has herself sufficed in the restoration of the sick man to health. It is in ordinary practice so difficult to distinguish the effect from the sequence, that when one has the rare opportunity of witnessing the unaided and unimpeded restorative efforts of the system, it is an occasion not to be slighted. I have, therefore, undertaken to preserve notes of the graver cases of disease which are to be found in the medical clinic as a reminder to me hereafter, of when and where it is proper to interfere—for I take it to be a fundamental rule, in our present ignorance of the *mode of action* of remedies, that all active interference is, to say the least, superfluous, unless a well tested experience has found it indispensable. I see now the value of the numerical system in the appreciation of the value of therapeutic agents, and, although I see its difficulties, acknowledge the possibility of its employment."

January 21. "I have lately entered upon a course of chemical and microscopical observation of the secretions, and have learned much that is new and interesting to me both in a scientific and practical point of view. There are only one or two beside myself taking the course, and we have every opportunity, therefore, of familiarizing ourselves with the actual performance of analyses, a knowledge of which will be in future of the greatest value to me. My chief object in leaving Dublin for London was the study of urinary diseases, and you know already I was disappointed in finding there the facilities I had anticipated. I am, therefore, particularly rejoiced at having now the opportunity of acquiring here a familiarity with the chief means of their diagnosis. Pathological and microscopical chemistry is in itself a most interesting pursuit, and will serve hereafter to occupy the leisure time of which I shall doubtless have sufficient in the outset of my professional career.

I still continue to attend regularly every morning in the dead house to witness the dissections, and take particular interest in those which are conducted under the supervision of Rokitansky and the professor of legal medicine, viz: the judicial dissections, so called. I do not know that I have before spoken particularly of these. Every case which, in our country and England, falls within the jurisdiction of the coroner, must here be taken at once to the Hospital—an order is sent from the police directed to the professor of Pathological Anatomy (who receives yearly a salary of 600 florins for the duty), requesting him to report the examination of the body and the cause of death—a commissioner of the police, who is also a medical man, must be present at the autopsy, and the professor of legal medicine with his students. The examination

is also open to all, *i. e.*, to all medical men. This is certainly a rare opportunity, and I avail myself of it often in preference to the ordinary examinations where the death is from disease. Thus, for instance, I have seen several cases of suicide by hanging, and by throat cutting, cases of criminal abortion, and one of a gentleman who in a drunken frolic fell out of the window of his hotel and fractured his skull. The report, as you may suppose, is in all such cases most precise, and is of advantage to the bystanders from being dictated by the person making the examination."

Feb. 19, 1847. "A few words about Skoda's clinic. I always strive against the too hasty formation of opinions, and if I remember rightly, expressed the belief which had been communicated to me that the average mortality of the graver diseases in Skoda's ward was, if anything, less than in others where more active treatment was employed. I have at present no reliable means of ascertaining if such be really the case, and to what extent; but I would say from my personal observation in the clinic, that the cases of pneumonia and pleurisy seemed to me to convalesce more slowly than I have seen them do elsewhere. I was led to abandon my project of taking notes with a view of getting a natural history of disease, chiefly because Skoda began to employ more active agents than he had previously done, *as bleeding in excessive dyspnœa* in pneumonia, strong injections of nitrate of silver in dysentery; and also because I thought I could employ the same time more advantageously in the anatomical room. The course of Rokitansky's assistant, Laudner, is exceedingly valuable, as he is not only capable in the highest degree, but takes the greatest pains to satisfy all our inquiries and give us thorough instruction. Rokitansky is hardly ever to be seen in the anatomical rooms without his meerschaum or cigar in his mouth; most of the class follow the example of their professor, whether as a preservative against the bad air or not, I do not know.

Of late the whole medical world here has been occupied with the discovery of the insusceptibility to pain of persons under the influence of sulphuric ether. Many trials have been made with it in the hospital, and within a short time also, in private practice, all of which, as far as I can learn, have perfectly succeeded. I witnessed myself an amputation of the thigh and a resection of part of the lower jaw performed upon patients under its influence. The latter operation lasted *one hour and a quarter*, and the ether was inspired at intervals so as to keep the patient (a woman of 25 years of age) under its influence. Both operations were consummated without the least manifestation by the patient of suffering. As yet I have heard of no untoward consequences following any of the operations which can in any degree detract from this inap-

preciable benefit, which I feel proud to think was conferred upon humanity by an American. I am this moment writing under the somewhat relaxing consequences of an experiment I made upon myself this morning with the ether. The sensation I experienced was merely an agreeable intoxication accompanied with a feeling of fulness and tingling in the capillary vessels and nerves upon the surface of the body and inside of the head. It lasted about a minute, during which, however, I preserved entire consciousness and command of the voluntary muscles, although I felt inclined to commit all kinds of extravagances."

March 10. "You will observe that the date at the head of this letter is earlier than usual. The reason for this is, that I expect in a few days (the 15th) to break up from my winter quarters upon my proposed journey to the *Morgenland*, as the Orient is poetically termed by the Germans. Instead, however, of going down the Danube, I have reversed the route and go from here to Trieste, and thence over Greece to Constantinople, this alteration being made in consequence of the necessity of making a quarantine of seven days between Constantinople and Athens at Syra, if I had adhered to the first plan. By the other route, however, there are no quarantines, except a day or so on the Austrian frontier, and there is the additional advantage, also, of being sooner in a warm climate. I shall have a most agreeable and instructive companion on the journey in Mr. Stiles, the American Chargé here. I have seen a great deal of him during the winter, and have received a great deal of hospitality at the hands of himself and lady, and acquired a great friendship and esteem for him. We will probably be on the journey some six or seven weeks, and thus return to Vienna in the most beautiful season of the year."

Dr. Stillé left Vienna with many regrets, and after making his proposed tour through Turkey and Greece, returned to Vienna about the latter end of May, whence he proceeded by the way of Linz, Salzburg, Insbrück, and Frankfort to Paris. His last letter to his brother, marked *ultima*, was from that city. In it he says:—

"Six weeks of idleness even in the gay city of Paris, have taught me that contentment and conscientious labor go hand in hand, and I am not sorry soon to have in view a life devoted to earnest and profitable study. The time I have wasted I hope to redeem, and that which I have well employed, will, I trust, bring forth good fruit."

On the 9th of August, 1847, he embarked from Liverpool for

home, bringing with him besides a collection of medical works, chiefly German, a variety of anatomical models, mostly selected from Thibert's series of *Pathologie Interne.*

It may possibly appear to many of you that I have devoted entirely too much space to these letters of our late colleague, and that a general statement of the various courses he attended while abroad, and where and under whom they were conducted, would have been sufficient. I have acted purposely, however, in the matter, satisfied, from various reasons, that the story of his life, during the three years of his residence in Europe, was best told in his own language, and without any comments. My chief regret, in truth, has been that the limits usually allowed to such papers in the *Transactions* would not permit me to extract even more largely, as the whole course of his conduct while abroad exhibits, as it is depicted in them, a most instructive example of unwearied industry and self-denial.

From the great stress I have laid upon his attention to his medical pursuits while abroad, it would be incorrect, however, to imagine that study, though his chief, was his only occupation there. His views and tastes were far more expansive and generous. Impelled by a strong desire to see those places and objects which are renowned in the world's history, or famous as the creations of man's genius, he visited, during the summer vacations, nearly all the countries of Europe. In many of his letters, he describes, *con amore*, the genuine gratification he felt on these occasions; in fact, of all his recollections of foreign life, such seasons of delight were most treasured by him, nor can it be doubted that they exerted a very happy influence upon his character.

Shortly after his arrival in Philadelphia, he took an office with the intention of devoting himself to the practice of his profession. For this, I need hardly say, he was in every respect well prepared; his steady industry and large opportunities having given him much more experience than usually falls to the lot of commencing practitioners. During the year that intervened between this period and the following July, with the exception of several reviews written by him, I have no record of the manner in which he passed his time. Early in July, 1848, he was elected one of the resident physicians of the Pennsylvania Hospital, for the unexpired

term of the late Dr. Morgan. He remained at the hospital till March the 28th, 1849, nearly nine months, receiving from its managers, at the close of his term, a certificate commendatory of his attention and good conduct.

Towards the latter end of June of the same year, malignant cholera, then epidemic throughout our whole country, broke out in its most virulent form in the Philadelphia Almshouse, Blockley. The care of the patients was at first undertaken by the Resident Physicians, but the number of the sick so rapidly increased that their duties became too arduous for them, and a separate cholera service was instituted by the Board of Guardians; to this Dr. Stillé and Dr. Edward R. Mayer were appointed physicians, in connection with a Medical Board, consisting of the Chief Resident Physician, Dr. Benedict, and the consulting Surgeon and Physician of the Hospital, Dr. Page and Dr. Clymer. The excessive malignity and rapid spread of the disease are shown by the fact that, out of a population of about 1400 persons residing in the house, the cases admitted into the Cholera Hospital from its opening on the 7th of July, until its closure on the 4th of August, numbered 222, of whom 192 died. The services rendered by the Medical Board and their assistants, during this period, were not only harassing and laborious, but involved in their discharge, as may be supposed, great personal risk. So poisonous, indeed, was the miasma, that the health of several of them soon became seriously affected, and two of them, Mr. T. M. Flint, of Philadelphia, and Mr. J. Warren White, of Mississippi, gentlemen who had nobly offered their gratuitous services to the sick, fell martyrs to it, dying in the city, a few days after their removal from the Hospital.* Ten days after the commencement of his duties, Dr. Stillé was himself attacked with cholera and narrowly escaped with his life. It took him a long while to recover from it, even as it was, so shattered was his constitution by the disease.

On the 10th of October, 1850, Dr. Stillé was married to Miss Heloise Destouet, daughter of S. Destouet, Esq., of Philadelphia. The union was, in every respect, a happy one, leaving him, in

* See "History of the Epidemic of Cholera, at the Philada. Almshouse, Blockley, &c.," in the November No., 1849, of the Medical Examiner.

his domestic relations, nothing to wish for. A few days after his marriage, he again sailed for Europe, accompanied by his wife and his brother, Dr. Alfred Stillé. The first part of his time while abroad was passed in Italy, and the latter portion in Paris, where his eldest daughter was born. He returned to Philadelphia in the month of April, 1852, and resumed the practice of his profession. During the years which intervened between this period and his death, he endeavored to reap from the pursuit of his profession some reward for his long and conscientious studies; but the measure of his employment did not satisfy his expectations, or reconcile him to the truth that success in the attainment of practice, is more frequently won by uninterrupted devotion to its daily duties, than either by native talent or by proficiency in the science upon which it is based. Like many others who had enjoyed advantages similar to his own, he was impatient to succeed, and did not rest satisfied with the attachment and respect of the comparatively small number whom his devotion and skill had made his debtors. He forgot, in fact, that the years of his absence were, as regards professional practice, lost years, although so rich to him in all the fruits of knowledge. Yet, had he lived to obtain what he desired so anxiously, it may be questioned whether he would not have looked back to those very years as among the happiest of his life, and perhaps expended many a sigh upon their not unprofitable tranquillity. It was during this period, I may mention, that he devoted himself to the experimental study of chemical analysis, and acquired a knowledge of it, which proved of essential service to him in the preparation of his work on *Medical Jurisprudence.*

A year before his death, a circumstance occurred which entirely changed the current of his thoughts and feelings, as it was about that period that the idea was first suggested to him by his friend Francis Wharton, Esq., of writing a work on Medical Jurisprudence, Mr. Wharton offering to undertake the legal part of it, should the project meet with his views. The proposition came at an auspicious moment, when the want of some steady employment was, as we have just seen, being daily felt by him, and in itself afforded so excellent an opportunity for the exercise of his various powers, that he almost immediately acceded to it. Of the intensity of his application, as well as of the conscientious spirit

which actuated him in his labors, during the year which followed, his colleague, Mr. Wharton, in the just and touching tribute to his memory, contained in the preface to their joint work, thus speaks: "It was a year of patient and severe research, marked to an extent of which the annals of science afford few parallels, by the most self-denying industry, as well as by a rigorous and almost fastidious conscientiousness in the pursuit, not only of truth, but of the most appropriate terms by which that truth could be expressed."

In the month of March, 1855, he was appointed Lecturer on the Theory and Practice of Medicine in the Philadelphia Association for Medical Instruction. The previous incumbents had been his brother, Dr. Alfred Stillé, and his friend, Dr. J. Forsyth Meigs, and the circumstance that he had been thought worthy to succeed such men, was both gratifying and inciting to him. I have understood that he had but two weeks to prepare himself for his post, and when it is considered that his lectures were written ones, and that at the same time he labored without intermission upon his Medical Jurisprudence, a good idea may be formed of the fatigue he must have undergone during this period. Yet he never once was absent from his post, nor spared any pains to render his instructions useful by procuring recent specimens of diseased structure, and employing in their demonstration, the knowledge he had gained with Barth, Engel, Rokitansky, and others, as well as by his own dissections, and an extensive literary acquaintance with pathological anatomy. His lectures were listened to with interest and satisfaction, and the resolutions adopted by his class at his death, testify both their high appreciation of his ability as a teacher, and his qualities as a man. With the beginning of June his lectures terminated for the summer, and at the same time the last sheets of his posthumous work were passing through the press.

And thus, the bright prospect of future eminence and renown lay seemingly fair and open before him, and it only appeared needful for him to press onward with diligence and judgment to be able to reach the goal with both safety and honor. But these hopeful anticipations were never to be realized. With every faculty of his mind intently engaged upon his labors, he either did not notice, or disregarded the gradually wasting and exhausting

effects which such intellectual efforts, in conjunction with his sedentary habits, were producing upon a frame naturally delicate, and the unconsciousness continued, until he was suddenly made aware that his health was disordered; nor did he even then attribute it to the right cause, nor consider it of serious import. A trip to the sea-shore, he imagined, would speedily restore him to health, and enable him to return to his work with renewed vigor. With this view, he went to Cape May, intending to pass two or three weeks at the sea-side. The change of air was at first beneficial, as there was a manifest improvement in all his symptoms. Most unfortunately he was shortly afterwards attacked with pleurisy, brought on by imprudently sleeping in a draught, after bathing. The attack was seemingly slight, but in his enfeebled condition, it greatly depressed and weakened him. Finding that he did not improve at the sea-shore, he returned to Philadelphia, and in a few days afterwards, accompanied by his wife and other members of his family, set out for Saratoga, which he reached, completely prostrated by his journey, which it had taken him several days to accomplish. And there, on the 20th of August, one short week after his arrival, soothed and ministered to by the affectionate care of those who were dearest to him on earth, his wife and mother and brother, he expired, in the 33d year of his age.

"Oh! What a noble heart was here undone,
When science' self destroyed her favorite son!
Yes, she too much indulged thy fond pursuit,
She sowed the seeds, but death has reaped the fruit.
T'was thine own genius gave the final blow,
And help'd to plant the wound that laid thee low:
So the struck eagle, stretch'd upon the plain,
No more through rolling clouds to soar again,
Viewed his own feather in the fatal dart,
And wing'd the shaft that quivered in his heart;
Keen were his pangs, but keener far to feel
He nursed the pinion which impelled the steel."

Such was the life of our late colleague—too short, alas! for his own fame, yet long enough to leave a bright remembrance behind him, the radiance of which will not soon pass away.

The character of Dr. Stillé may be said to have been distin-

guished rather by a combination of several excellent qualities than by any very marked or conspicuous one. No one faculty, either intellectual or moral, dwarfed and weakened by its overgrowth, the rest of his nature. He possessed a good intellect, a high sense of duty, and a resolute, decisive will. Of these, the last faculty appeared to be the most striking feature of his character. Whatever he undertook, he applied himself to with a quiet determination from which no obstacle or allurement ever diverted him for a moment. This steady, unwavering perseverance in the pursuit of objects was observed even in his early boyhood, and contributed, undoubtedly, more than any other quality he possessed to make him what he was. In its exhibitions, however, it was always subordinated to his judgment, and both guided and regulated by what he conceived to be his duty. His standard in this latter respect was ever of the highest, and what is rarer and more commendable, he lived up to it. Thus, in the very heyday of his blood, he visited Europe alone, and though not compelled by necessity, the incentive that so many require to urge them onwards, to devote himself as ardently as he did to science, his sense of duty as a responsible and moral being was so much stronger than his youthful impulses, that neither the dissipations of Paris, nor the gayeties of light-hearted Vienna could often wean him from the quiet of his chamber by night, or withdraw him from the duties of the hospital or the class-room by day. When he wished to relieve his mind from the severity of his studies, he did so; but his companions were men of sense and distinction, and his relaxation tended to the refinement of his taste and his improvement in general knowledge. The same conscientious spirit distinguished his course through life, and it deserves to be ranked among the highest virtues of his character.

His moral nature, besides the qualities I have indicated, was marked by integrity, truthfulness, and a contempt of everything mean or dishonorable. His views of right and wrong, of duplicity and plain dealing, were positive and uncompromising; nor was he one who was ever "ashamed to avow what he believed to be true, or afraid to practice what he knew to be right." There was a steadiness and consistency of action and opinion in him in all these respects, which showed that his conduct was guided by

principle rather than by impulse, and his whole course through life was strongly illustrative of it.

Another feature of his character, so personal to him that no one who knew him could fail to mark it in him, was his modesty, or rather his absence of pretension. To anything like display or self-parade, no one could ever be more averse, and it was largely owing to this trait, I imagine, that so few, even of his friends, were acquainted with the extent of his acquirements, as he very seldom spoke either of himself or his labors. Not that he was an unambitious man; on the contrary, "that last infirmity of noble minds" was a strong and even powerful element of his character. It was a high and worthy passion in him, however, that never seduced him from his principles, and was aimed at respect and honorable standing, not at notoriety or even popularity.

His attachments to his friends and family were strong and not easily shaken; in all the relations of life, in fact, he exhibited a bright pattern of excellence. He was a dutiful son, an affectionate husband, a kind brother, and a true and steadfast friend.

That he had his failings and shortcomings there can be no reason to doubt, as they belong in greater or lesser degree to every one. No one acquainted with him, however, can fail to acknowledge that his moral nature was of a high order, as well as that no blot or blemish ever sullied his conduct in life, or can tarnish the fair name he has left behind him. In truth, he had that "chastity of honor," as Mr. Burke has happily termed it, that would have felt a stain like a wound, so sensitive and high-toned was his estimate of an unspotted reputation.

The following extract from a letter, written after his death by one of his oldest and most intimate friends to another who equally loved and respected him, conveys so just a view of him, that I cannot resist the temptation of quoting it:—

"The death of no one," says the writer, "unconnected with me, could have affected me more sensibly. Young, happily married, with an interesting family, friends that loved and admired him for his candor, sincerity and manliness, with a well stored mind, eager for knowledge, ambitious of distinction obtained by all worthy means, full of gentleness and genius, it is a most mournful thing that his life should have been so soon terminated. We had been intimately acquainted for

many years, and if the University where I made his acquaintance, and contracted a friendship which has been uninterrupted by time and separation, had done nothing else for me, I would have cause to remember it with gratitude, for having given such a friend to me. He had a noble disdain of all meanness and sham, professional or private, and would never descend to seek a praiseworthy end by unworthy means; indeed he was one of the truest gentlemen in his sentiments and conduct I ever knew; had he been less nice in his feelings, and hoodwinked his perceptions of truth and honor, he would doubtless have been better known and more widely, but not so truly and profoundly lamented."

Throughout a good part of his life, Dr. Stillé was a methodical and industrious student; and though he could not be properly termed a learned man, his acquirements were various, and far above the average. Thus, besides being an excellent classical scholar, he spoke and wrote both the French and German languages with ease and fluency, read the Italian, and soon acquired sufficient facility, whilst in Vienna, to enable him to understand Latin, the language then used by the professors in their clinics. Of his knowledge of medicine sufficient has already been shown, and I shall merely remark that it was especially large in the departments of general pathology and pathological anatomy.

His memory was retentive, and his intellect acute, clear, and well-balanced. Never led astray by the false colorings of imagination, he saw things in their true light, not as he might have wished them to be. Perhaps he was rather deficient in the imaginative faculty, and a larger development of it, by making him more hopeful, and enabling him to live more in the future, would certainly have added to his happiness.

In his intercourse with society, his bearing, though somewhat formal and reserved, was manly, courteous, and dignified. Everything about him, in fact, indicated the gentleman; a nice sense of propriety always marking his manner and conduct. His temperament was serious and contemplative, his inclination, even when young, being rather for reading and study than for the usual pursuits of youth. He was not accustomed, openly at least, to look far forward for enjoyment, and was, perhaps, more apt to take a desponding than a cheerful view of the future and the present. No doubt the reflection that his studies and toils had

not brought him a corresponding professional employment, tended to render his estimate of life sometimes a very low one, and to make him regret that he had not turned his attention to some other pursuit, in which the rewards of merit are earlier attained, as well as more valuable. Of this feeling he seldom spoke plainly, but he certainly entertained it, especially before the commencement of his Medical Jurisprudence. His labor on that work was a delight to him, and he evidently saw in it the beginning of a career of useful and agreeable occupation. The trait I have mentioned was, nevertheless, far from rendering him gloomy; on the contrary he was always cheerful, though seldom gay. This mood, no doubt, his happy domestic relations tended to encourage. In his home, he found all the social happiness he sought, and it was only from a sense of what the rules of courtesy required, that he sometimes entered into society. His domestic circle, a few friends, and his studies, filled his affections and his mind.

His acquaintance with books was not confined to medicine, even in its largest signification. The German was the language he preferred, and his knowledge of it rendered its literature a perfectly accessible source of pleasure. He sympathized deeply with the earnest tone and solid structure of the German mind, but had much less in common with the versatile genius of the French, or the fanciful mannerisms of Italian literature, yet occasionally he read them all; and from all he drew what fashioned his own mind to a singular degree of acuteness in matters of literary and artistic taste, cultivated as it had been in respect to the latter by long familiarity with European art.

No one can be more conscious than myself, that the sketch I have just given of our late colleague but feebly expresses either the beauty or strength of his character. His conduct through life and in all its relations constitutes after all that might be said of him, however, his best and truest eulogium, and it needs no coloring whatever to make it a beautiful one.

Dr. Stillé's writings consist of his thesis upon Cyanosis or Morbus Cœruleus, of numerous scattered articles in the medical journals of our city, including both reviews and original papers, and of his *Treatise on Medical Jurisprudence.* It is not too much, I think, to say of all of them, that they are marked by good

sense, information, and an easy flow of language. His style, in most respects, is a faithful reflection of his character. It is methodical, accurate, and dignified. As he never wrote upon subjects he had not studied and did not understand, his own ideas were distinct and well defined, and he communicates them clearly and without confusion to his readers. It may not be uninteresting to mention, also, that he wrote rapidly and easily, and that his manuscript was singularly free from erasures and interlineations. Composition, in fact, was no labor to him, as he was naturally endowed with a great mastery and facility of expression, and he found no difficulty in clothing his thoughts in appropriate language.

His thesis was published in the July No., 1844, of the *American Journal of Medical Sciences*, and occupies eighteen of its pages. The phenomena of cyanosis, it may be briefly stated, were previously referred to one or other, and occasionally to both of the following causes: 1. Obstruction to the return of the venous blood to the lungs. 2. Presence of the venous blood in the general arterial system. Louis, Berard, Bertin, Ferrus and others adopted the first explanation. Morgagni, Senac, Corvisart, Caillot, Labat, Bouillaud, and particularly Gintrac, of Bordeaux, who had written an excellent treatise upon the subject, based upon a consideration of 53 cases, advocated the latter view. This last theory is critically examined by Dr. Stillé, and is shown to be untenable by the fact that in several cases mentioned by him where the characteristic discoloration of the skin and other phenomena of the disease were present during life, the autopsy revealed neither an open foramen ovale or a defective ventricular septum, nor did there exist any abnormal disposition of the principal vascular trunks, by which the arterial and venous blood could commingle. Hence, he arrives at the deduction that cyanosis may exist without admixture of the two sorts of blood. By similar evidence he shows, secondly, that there is no proportion between cyanosis, and the degree in which the blood is mixed; thirdly, that complete admixture of the blood may take place without cyanosis; and fourthly, that the variation in the extent, depth, and duration of the discoloration is inexplicable by the doctrine of the mixture of the blood.

Having thus disposed of the popular theory which referred

cyanosis to a mixture of arterial and venous blood, as its cause, he then examines the remaining doctrine, which ascribes its phenomena to "obstruction to the return of the venous blood to the lungs," in other words, "to a congestion of the general venous system, resulting from some obstruction in the right side of the heart, or in the pulmonary artery, impeding the return of its blood to the lungs." If this latter theory be true, the structural lesion which it assumes to exist, he states must meet the three following indications:—

1st. That it shall account satisfactorily for the discoloration of the skin and the dyspnœa.

2dly. That it shall be found in every case of cyanosis, or if not, there shall exist in its place some cause acting upon similar principles.

And 3dly. That it shall never be found without the concurrence of cyanosis, or if it is, that a satisfactory explanation of the exception shall be given.

The limits of this paper will not allow me to enter into any particulars regarding his proofs of these propositions. I will only state, therefore, that of 62 cases, all that he could find recorded, in which the condition of the pulmonary artery was observed, it was either contracted, obstructed, or impervious in 53; while in the remaining 9 cases, in which this condition did not exist, there were found much more important structural alterations, either of the heart or great vessels arising from it, and acting in the same manner upon the circulation.

The conclusions at which he arrives from a consideration of all the facts, are, that the essential characteristics of cyanosis are constituted by general venous congestion; that there is no *one* lesion which is entitled to be considered as its anatomical character; but that it depends upon any cause (contraction of the pulmonary artery being the most common), which acting at the centre of the circulation, produces a stasis of venous blood in the capillary system.

The variety of lesions found in the heart and great vessels of persons affected with cyanosis was the chief obstacle, it may be remarked, in the way of the previous inquiries, and it required the most careful classification and analysis of all the facts connected with it, to arrive at any definite result in regard to its pa-

thology. In both of these respects, the paper is a model one; it is clearly written, thorough in its sifting of evidence, and evinces high powers of reasoning—and although twelve years have passed since it was written, its results still remain uncontroverted. Abroad, it has attracted the attention of all investigators of the subject. One of the most thorough among them, Dr. Norman Cheevers, says, in a paper published in 1847 (*Lond. Med. Gazette*, March, 1847, and *Am. Journ. of Med. Sciences*, July, 1847, p. 207): "The opinion that cyanosis is exclusively due to the circulation of the venous blood through the arterial system, has been satisfactorily disproved by Dr. Stillé, who adduces ample evidence in proof of his conclusions"—and then adds, "The results of my own investigations are almost entirely confirmatory of Dr. Stillé's inferences."

Dr. Stillé's contributions to the Journals, will be principally found in the *American Journal of Medical Sciences*, between the years 1848 and 1855, inclusive. All of them give evidence of ability; they are exceedingly well written, also, and many of them may be read with interest and instruction even now. For specimens of his critical powers, style and mode of treating his subject, I may refer you to his review of Dr. Addison's* Experimental and Practical Researches, and to his notices of Chomel's† Elements of General Pathology, and of Dr. Stokes'‡ Treatise on the Diseases of the Heart and the Aorta.

His paper on "The Psychical effects of Ether," published in the *Philadelphia Med. Examiner*, for Dec. 1854, is well deserving of notice, also, as a valuable contribution to our knowledge upon a question of much interest. The subject is carefully and candidly discussed, and the conclusions arrived at may be fairly considered to be established.

The treatise on Medical Jurisprudence was, as previously stated, the joint production of Mr. Wharton and himself. Their object in writing a new work upon a subject that had been previously so ably handled by others was, as stated in the preface, twofold: "First, the incorporation in its pages of the results of late continental, and particularly French and German research; and secondly, the bringing together stereoscopically of the legal and medical points of view, so that the information required by each

* October, 1849. † April, 1849. ‡ July, 1854.

profession might be collected and viewed at the same time and within the same compass." The share assigned to Dr. Stillé in its composition, consisted of the 2d, 3d, 4th and 5th books, on the Fœtus and New-born Child, on Sexual Relations, on Identity, and on the Causes of Death. Of the manner in which this portion of the work was executed, I only reiterate the unanimous sentiment of the profession, so far at least as it has been expressed in the numerous reviews that have been written upon it, in saying that it is considered by all to be a most valuable addition to our medical literature. It certainly occupies a position in advance of all previous works upon the same subject, for much of its information, owing to its being gathered from sources almost entirely unexplored before, is positively novel. Almost every page in it testifies by its numerous references to the extended research of the writer in these exotic regions. The large experience thus obtained, I need hardly say, was of great use to him, as it not only enabled him to establish more absolutely what had been previously affirmed by others, but in some instances to arrive at new and valuable results. The style is clear, easy, and appropriate to the subject, and indicates throughout a practiced writer. Equal skill and judgment are, also, shown in the selection and arrangement of the materials collected, and these qualities, united to its legal attractions, deservedly entitle it, I think, to all the praise that has been bestowed upon it.

Such, Mr. President, is the history of the life and labors of our late colleague, and as I have already trespassed more largely upon your indulgence than I expected, I shall confine myself to a single remark upon each of them. The most impressive lesson his life inculcates and exemplifies, it appears to me, is the importance of the early formation of good habits. By his exemplary conduct, untiring industry, and the singleness of purpose with which he devoted himself to his studies, when *young*, he not only strengthened his intellect, and furnished his mind with materials for future thought and comparison, but what was of even more moment, he formed those habits of moral and mental discipline, which were their own best rewards in after life, and without which no man was ever yet eminent in his profession. In this respect, the moral of his life is a most instructive one to all who come after him.

Of his writings, the results in every instance of previous study and preparation, I have spoken sufficiently already. When all their varied and solid excellences are considered, however, his premature death cannot but be regarded as a great misfortune to the cause of our medical literature. The rich promises of his youth were only in part fulfilled by the publication of what he has left us. Had a longer summer been allowed him to ripen his faculties to a still higher state of cultivation, his final position would in all probability have been a most distinguished one. For there can be little doubt that he would have continued his literary efforts. His thorough mastery and facility of expression, his large knowledge and honorable desire for distinction were the very qualifications necessary to place and establish him in the position he had determined to reach. If we add to these, that none of the common obstructions to such a pursuit existed in his case, that his means were ample, and the claims of professional business upon his time but slight, my assumption will appear even more probable.

But why should I prolong these vain regrets? Why grieve that one whose morning seemed to herald so bright and sunny a future, should have entered, ere its meridian, into the shadow of the dark valley? Brief as his life was, he lived not in vain. Within the circle of his peaceful years, all was gentleness, industry, and devotion to duty. Every step was a step of power, and higher culture, and more perfect attainment. Who can estimate the moral uses, the determining influence of such a character! Like the gentle rain from heaven, it sheds its benign blessings on all around it, and the seeds which it nourishes contain within themselves the germs of harvests that shall bloom, here and in the world to come, forever.

The Librarian announced the following donations to the library:—

From Dr. La Roche, the *Works* of John Hunter, 4 vols. 8vo.; *Medicina Rationalis*, by F. Hoffman, 3 vols. 4to.; *Repertorium Medicinæ*, by W. G. Ploucquet, 9 vols. 4to.; *Medico-Chirurgical Review*, 7 vols. 8vo.

From Dr. F. Bache, *Mortality Statistics of the U. S. Census for* 1850, 8vo.

Stated Meeting, May 7, 1856.

Dr. BACHE, Vice-President, in the chair.

Present, thirty-nine Fellows.

The Librarian reported the following donations:—

From Dr. LAWSON, Surgeon-General of the U. S. army, the *Army Meteorological Register*, from 1843 to 1854, inclusive, 4to.

From the author, by Dr. LAJUS, *Cours Théorique et Clinique de Pathologie Interne, et de Thérapie Médicale*, 3 vols. 8vo., by Professor GINTRAC of Bordeaux.

From Dr. RAND, *The U. S. Codex for* 1837, and *An Outline of Chemistry, for the Use of Students*, by B. Howard Rand, M. D.

The Librarian also announced the completion of the manuscript catalogue of the library.

Dr. F. G. SMITH introduced Dr. Bunting, who exhibited to the College the Canadian Alexis St. Martin, affected with a fistulous opening in his side, communicating with the left extremity of the stomach. Dr. Bunting read an account of the accident which had occasioned the opening, and of the subsequent progress of the case, as related originally by Dr. Beaumont.

Dr. SMITH also stated the results of some experiments performed by himself and other gentlemen, to test the action of the stomach upon food, in this case.

Stated Meeting, June 4, 1856.

Dr. WOOD, President, in the chair.

Present, twenty-four Fellows.

The Librarian announced the following donations:—

From Dr. GOBRECHT, Curling, *A Practical Treatise on Diseases of the Testis.*

From Dr. BETTON, Milne Edwards, *Notions d'Anatomie*, &c.

From Dr. PAUL, Good, *Study of Medicine*, 5 vols. 8vo.; Georget, *de la Folie;* Ibid., *Physiologie du Système Nerveux*, 2 vols. 8vo.; Bichat, *Traité des Membranes*, Meckel, *Manuel d'Anatomie*, 3 vols. 8vo.; Alibert, *Maladies de la Peau*, 2 vols. 8vo.; Démours, *Maladies des Yeux*, 3 vols. 8vo.; Laennec, *Auscultation Médiate*, 2 vols. 8vo.; Sabatier, *Médecine Opératoire*, 4 vols. 8vo.; Andral, *Clinique Médicale*, 2 vols. 8vo.; Corvisart, *Maladies du Cœur;* Magendie, *Precis de Physiologie;* Orfila, *Médecine Légale*, 2 vols. 8vo.; Collin, *Exploration de la Poitrine;* Sarlandière, *Electro-puncture;* Capuron, *Cours d'Accouchemens;* Rostan, *Ramollissement du Cerveau;* Bateman, *Maladies de la Peau;* Chomel, *Pathologie Générale.*

From Dr. E. H. BARTON, of N. O., *Report of the Sanitary Committee of New Orleans, on the Epidemic of Yellow Fever in* 1853.

Dr. S. W. MITCHELL read the following Report of

A CASE OF PROTRACTED SLEEP.

THE occurrence of a case of protracted sleep must be a rare medical incident. Most of the books upon sleep, and its phenomena, allude to, or quote three or four examples only, and in many instances it is very difficult to trace even these to their original reporters. Others resolve themselves upon careful scrutiny, into instances of catalepsy, or ecstasy, so that I have been able to collect and tabulate only eighteen cases of undoubted sleep—greatly prolonged. The majority of these cases are stated with but little method, and without any such rational and careful detail of symptoms as we are led to look for in scientific writings. As an example of this constant want, I may state that the condition of the pulse is given in not more than two, of all the cases cited. With this apologetic preface, the following paragraphs may be taken as condensed statements of the various phenomena which accompanied the cases I have brought together.

Duration.—Of the 18 cases, nine slept protractedly, on several occasions.

The longest sleep on authentic medical record, continued uninterruptedly during six months; another, that of Chilton, endured seventeen weeks.

Six cases of eighteen passed a large portion of each day in sleep—as in one case twenty-one hours, in another twenty-three hours.

Character of the Sleep.—The sleep is usually described as profound. In other cases it was perfectly natural, and the patient was capable of being aroused for brief periods. Where brain disease preceded the sleep, these waking intervals were never perfectly rational. In the cases which were due to hysteria, the patients appeared to be more or less sane, when awake. The details of the state of skin, pulse, respiration, and functions generally, are, as I have stated, miserably meagre. In the best told cases, the evacuations are said to have occurred with almost natural regularity.

Age.—Here, again, there is a defect in the returns. All we can add, is that, with two exceptions, the patients seem to have been below middle life.

Sex.—Of the eighteen cases, ten were females, seven males, and one a child whose sex is not given.

Cause.—The age and sex of the patients combine to hint at hysteria as the most efficient of the causes. Two are distinctly affirmed to have been of hysterical temperament. Mental emotion is assigned as a cause in two cases. In three there was paralysis, either preceding or accompanying the sleep. A majority of cases could be traced to no distinct cause.

Remedies.—In no one case do these seem to have been of any value. Among them I find bleeding, blisters, baths of all kinds, an endless list of drugs, flagellation, acupuncturation, actual cautery to the spine, and limbs, cutting, pinching, and irritants to the nose, etc., as white hellebore in powder, and strong ammonia. Neither vigor, nor a cruel ingenuity seems to have been wanting in the application of the most extreme measures.

Result.—Of the eighteen cases, we have no report as to four. Eight recovered easily, without sequel. Two got well with loss of intellect, in one of them temporary. The other fell a victim to apoplexy, four months after awaking. One recovered with insomnia as a sequel. One recovered suddenly after a six months' sleep, and instantly beginning to talk, resumed the train of thought which his slumber had suspended.

Of the eighteen cases, four are stated to have died asleep, as it were.

Strange to add, I can find but one account of any post-mortem examination, and in that one, the return is simply, no lesion!

The case which I am about to report is full, upon every point as to which the accounts of other cases are silent. The history of the case is known, the symptoms were accurately recorded, and the post-mortem examination offered at the least a choice of possible causes. Besides these details of ordinarily noted signs, it will be seen that, on other grounds, the case has a certain physiological interest.

M. C., female, æt. 45 years; unmarried; seamstress. Has large features, a coarse, dark complexion, and generally a robust masculine look. She menstruates regularly, and has daily evacuations. She has never complained of dyspepsia, or neuralgia; nor has she ever exhibited any hysterical affection.

Within three years, she has complained at times of headache, and her temper, once gentle, has become rather irritable.

On the 20th of July, 1855, M. C. began to live on a canal packet, which plied between Philadelphia and Albany. On 28th Oct. she was made sea-sick, during a gale of wind, on the Hudson River. This was followed by occasional dizziness and loss of sight. Nov. 4th, she took a full dose of magnesia, to correct costiveness. Nov. 6th., M. C. became suddenly giddy, complained of numbness in her hands, and of a difficulty in handling objects. A few minutes after, she fell upon the floor, as one dead. Cold to the head, and hot foot-baths revived her, so that although twitching a little, at times, she was able to give incoherent answers when questioned, not unfrequently spelling the reply slowly and deliberately.

During the three following days M. C. walked about as usual, with now and then an interval of some hours of deep sleep. At 11 o'clock on Wednesday, I saw her at her home in Philadelphia. She was lying upon a sofa. Her face was flushed and yellow, her eyes deeply injected, the pupils small and sluggish. Her pulse was 120 in the minute, hard, full, and labored. She protruded her tongue when repeatedly urged, saying sharply, "Didn't I do it?"

Elaborate questions elicited no reply, more simple ones she answered readily, complaining of headache and heat. At 12 M. she was put to bed. Her head was shaved, and cold water applied, 18 oz. of blood were taken from the arm, and 10 grs. calomel given internally. The bleeding lowered her pulse, and made her more rational. Talking freely, at times, and at intervals sleeping, she continued better until eight o'clock P. M. of the same day, when she spoke no more, and lapsed at once into a state of the most profound slumber.

Late on Wednesday night M. C. passed a few ounces of dark urine, loaded with bile. She had passed none for two days before, and when examined on the morning of Wednesday, her bladder was empty. A dose of salts, ordered shortly afterwards, could not be given on account of a spasm of the temporal muscles, which held her jaws closely locked. Half a drop of ol. tigl. was substituted, and the same dose was repeated on Thursday morning. A blister was also placed on the top of her head. During the night she had many partial convulsions. Here and there the flexors of her limbs would be thrown into rapid spasm, and then slowly relax. This symptom, which was followed by profuse sweats, did not recur. The medicine acted freely, several times on Thursday. Urine passed twice, and the skin remained moist and natural.

During the three ensuing days her pulse averaged 97 in the morning, and fell uniformly towards night to 80. The respiration on the contrary increased in frequency as the night came on. On Monday, at 1 P. M., M. C. awoke just after taking a dose of assafœtida, at which her face expressed the utmost disgust. She remained awake one hour, answering my questions, with yes and no, quite rationally. On Tuesday, she awoke once, and on Wednesday thrice. At these times she knew those about her—named some of them, and complained of headache, and of the taste of the medicines. Thursday, awoke once and spoke several times clearly and well. Again, in the evening, she aroused better than at any previous time, while under the exciting influence of electric currents, and complaining of the means employed, pushed aside the wires. Friday—awake during two hours. Galvanism no longer affects her as it did. Saturday—during the last three days her pulse rose to 120, and now to 150; respiration rapid,

and uneasy. Her jaws were no longer locked, but hung open, so that her mouth and tongue became dry and harsh. During Saturday, M. C. awoke once, replied rationally to short questions, and then slept, to wake no more. As the day advanced, her pulse grew quick and feeble, while her breathing, although hurried, was in no degree stertorous. During the day she urined as usual, but up to the last moment there was *no* involuntary evacuation of feces, although the *post-mortem* examination proved the sigmoid flexure to be filled with them. At 4½ A. M. on Sunday, M. C. ceased to breathe, expiring without convulsions, and exhibiting up to the moment of death, all the visual signs of a calm but profound slumber.

Cadaveric section, thirty-six hours after death. Cadaveric rigidity nine hours after death.

The body was full and fleshy. Breasts and abdomen covered with one and a half inches of fat. Head large, bone sound, no fractures. Firm exudations on the outer surface of the arachnoid tunic, tying it closely to the dura mater for an inch on either side of the posterior two-thirds of the great longitudinal fissure. The arachnoid is knit in a similar manner to the pia mater, which comes away with it, leaving the brain exposed. A rough spicula of bone, one inch in length, and as thick as a knitting needle, lies imbedded in the dura mater a few lines to the left of the great longitudinal fissure, at about the middle of the posterior cerebral lobe. The exudations here mentioned are firm and unyielding, and evidently of no recent date. The vessels, on the surface of the convolutions are somewhat injected, and contain bubbles of gas. The cerebral tissue is firm, well developed, and perfectly healthy. A little yellow serum rests in the sub-arachnoid spaces, and in the ventricles. There is no evidence of pressure at any point, and even the spike of bone in the wall of the longitudinal sinus, does not seem to intrude upon the brain tissue. A careful microscopic examination of the brain revealed no degeneration of its vessels such as often accompanies fatty alteration of the heart. The ventricular serum contained many of the recently described starch corpuscles, and a still more abundant deposit of these curious structures existed in every part of the gray substance of the convolutions which I submitted to inspection.

Chest.—Lungs healthy. Heart small. Fatty degeneration of right side chiefly, somewhat on the left. Tissue easily torn. Valves healthy.

Abdomen.—Liver healthy. Two large cholesterin calculi in the gall bladder. All other organs healthy.

Uterus.—A fibrous tumor, about three inches in diameter, projects from the left side of the fundus of this organ. The ovaries are pale, with the exception of congested spots upon the right one, from whose stroma an ovule seems to have recently escaped. The patient, I may add, began to menstruate at her usual period, three days before she died, and, at the time of the examination, there was still blood in the womb, and in the vagina. No examination of the spine was permitted. The medulla oblongata and the upper inch of the spinal column were, however, healthy.

Remarks.—The case here reported seems to have been one of profound sleep. From Wednesday night until Monday at noon, the patient slept one long, and for the most part quiet slumber. If we except the period of convulsions on Monday night, there was no time at which a person, unacquainted with the case, would not have said, "She is asleep." During this time her pulse and breathing were good; and throughout, her urine was passed at regular intervals, and in normal amount. At a later period, even the bowels were moved without medical stimulus. During this sleep her pupils played freely, as a light approached the eye, but the ball did not follow a bright moving object as when awake. A sudden attempt, as if to strike the eye, caused no shrinking. A breath of air on the uncovered ball produced winking. Her lower jaw seemed partially locked, and could not be opened more than one-half an inch, although it acted well enough within that distance. When a crumb of bread was placed on the tongue, she moved the jaws, after a few moments' delay, but seemed unable to place the morsel between her teeth. There was no appearance of paralysis—taste remained unimpaired, and the act of chewing had all the seeming of a mere reflex phenomenon, such as is seen in the sucking motion of a sleeping child's lips, when touched by the finger or the nipple.

She swallowed fluids very well, after the first mouthful, which

always caused laryngeal spasms. The primary volitional preparation for the secondary and involuntary movements of swallowing seemed alone to be absent. These remarks do not apply to her intervals of wakefulness.

Some of the other reflex phenomena were not less curious. When the mouth, ear, or nose was tickled, she raised her hand, and with an open palm struck vaguely at the point of irritation. The movement resembled the paw-blow of an animal, brushing away an insect. A fly, crossing her face, evoked like motions, but, when awake, she did not seem to regard these stimuli nearly so much—merely moving uneasily, or shaking her head abruptly. Whenever I irritated any insensitive, or unusual point remote from the outlets or inlets of the body, she would raise her arms uneasily, and grope in the air, or strike about her at random.

As I have said, the electrical currents of an alternate action battery awakened her once, and for some time seemed to cause great annoyance; further use of this, or other stimuli, failed always, after a time, to call forth such movements.

Whenever any irritant was long used, or whenever, during its employ, her hands were held, she began to gape, sigh, and finally to grit her teeth with excessive violence, a phenomenon which in such cases usually lasted for hours together.

Dr. Wood said that the case just reported recalled to his mind that of a boy, which occurred many years since, when experiments in "mesmerism" were made in this city. The boy was a pupil of the Deaf and Dumb Asylum, about fifteen years of age, and afforded extraordinary facilities for being operated upon. After he had for some time been made the subject of experiment, he acquired the power of passing spontaneously into the mesmeric state; and at last, on one occasion, he lay in this condition for three days, without waking. One phenomenon, however, appeared to show that his state was one of half consciousness; whenever the finger was attempted to be passed between his knees, as they lay against one another, he evidently resisted its movement. Various means that were employed failed to arouse him, until at last his head was shaved, and a blister applied to the scalp; this remedy proved successful.

Dr. MITCHELL observed that when persons had frequently been mesmerized, they sometimes acquired the faculty of falling into a deep sleep at will. Sometimes, indeed, this occurred involuntarily, as he had witnessed in the case of a literary gentleman, the author of *Charcoal Sketches*, since deceased.

A proposition for Fellowship, 65, was presented.

SUMMARY

OF THE

TRANSACTIONS OF THE

COLLEGE OF PHYSICIANS

OF PHILADELPHIA.

FROM JULY 2, 1856, TO JAN. 7, 1857, INCLUSIVE.

Stated Meeting, July 2, 1856.

Dr. WOOD, President, in the chair.

Present, thirty-nine Fellows.

The Librarian reported the following donations to the library:—

From Dr. J. R. COXE: *The Writings of Hippocrates and Galen;* and *Coxe's Refutation of Harvey's Claims, with a Vindication of Hippocrates, &c.*

From Dr. S. LEWIS: Philip Tidyman, *An Inaugural Dissertation on Oryza Sativa.*

From Dr. F. G. SMITH: Carpenter, *The Microscope and its Revelations*, edited by Dr. Smith.

From Dr. J. C. MORRIS: Lehmann, *A Manual of Chemical Physiology*, translated from the German, and edited by Dr. Morris.

ERYSIPELATOUS PERITONITIS.

Dr. C. MORRIS remarked: some cases have passed under my notice recently of an interesting character, on account of the relation they appeared to have to the question of the connection of erysipelas with one of the diseased states following parturition which has proved so fatal to so large a number of females. The first was that of a child suffering with the usual symptoms of febrile dis-

turbance, attended by some enlargement of the submaxillary glands. Mumps being prevalent at the time, I supposed, as it often involves other salivary glands as well as the parotids, that the child was suffering from that affection, and adopted a mild refrigerant treatment. On the third day, facial erysipelas was manifested, commencing about the nose, and gradually extending to the whole face and scalp and reaching the neck, posteriorly and anteriorly, overleaping in its progress successive barriers of tincture of iodine.

As this child began to pass into the convalescent stage, her brother was attacked with similar symptoms, except that, in his case the swelling occurred on the tonsils, and the febrile disturbance was greater, attended by a strong tendency to eclampsia. On the third day, erysipelas made its appearance at the same part as in the previous case, but did not extend so widely.

The mother, a delicate woman, was most assiduous in her attention to the nursing of the children. She had an infant about a year old, and had suffered at the time of her delivery from fever, followed by the diseased condition known as milk leg. During the illness of the second child, she was seized with a chill followed by fever, with a very rapid and feeble pulse, and great tenderness and pain in the abdomen. She was at once put in bed, a small dose of oil given, and the abdomen covered first with warm cataplasms, and then with a large blister, and calomel and Dover's powder given in such doses as kept her in a state of quiet sleep. The oil operated gently, without increasing the sense of prostration, but without producing any diminution of the extreme frequency of the pulse, or increase in its volume. It was very small, feeble, and never less than 140 per minute. The intelligence was perfect. The belly became tympanitic, regurgitation of dark fluid from the stomach, without any nausea, was added to the already formidable symptoms, and she sank into collapse on the third day. The connection of this case with those of the two children, suggested to my mind the great probability of its erysipelatous character, and the treatment adopted was founded on that supposition.

It had been but a few weeks before this, that I was in attendance on another case, which is also of importance in the same connection. It was that of a gentleman, of middle age, in most

robust health at the time of the invasion of disease. I was called to him on account of his having been waked from sleep at an early hour in the morning by a violent chill, followed by excessive bilious vomiting. As his summers were spent in a malarious district, I thought it not improbable the attack had some connection with that fact, and directed the usual cathartic treatment, designing to follow it by the use of quinia so soon as the febrile disturbance should subside sufficiently. The purgative operated freely, but without producing any relief from the distress at the stomach, and the heat of skin and quickness of pulse remained unabated. The common neutral mixture was then directed. The following morning he complained of severe pain in the left hypochondrium, and I thought I detected some light crepitant râle in the lower part of the left lung. Cups were directed to be applied over the seat of pain, by which fifteen ounces of blood were drawn without any mitigation of the symptoms. They were, therefore, again applied, and a nearly equal amount was taken the second time. Calomel and Dover's powder were given, and a cataplasm applied to the seat of pain. The next day, his general distress was great, his pulse very frequent; there was sallowness of the skin, an injected eye, a tympanitic belly, much soreness along the course of the left jugular vein, with pain in the calf of the left leg, which was swollen and painful to the touch, but not at all discolored. He sank rapidly, with profuse purging of dark bilious matter. There was mild delirium.

On examination of the body after death, the calf of the left leg was found discolored, and the cuticle separated as if by a vesicant application, though nothing had been used but a soft warm cataplasm. The cuticle was also separated on the scrotum. The body was still warm, so that these changes were not the commencement of the regular putrefactive process. The body was loaded with fat, and, on opening the cavity of the abdomen, the peritoneum was found smooth and of its natural color, but contained about a half pint of thin purulent matter. The organs were all healthy except the spleen, which was not enlarged, and had its natural appearance externally, but, on dividing the capsule, was found to be softened in texture, so that, by the slightest pressure between the finger and thumb, it was reduced to a pultaceous state, having a reddish color and about the consistence of

cream. When subjected to observation under the microscope, it was found to abound in white globules, but there was no indication of the presence of pus. In the violence and rapidity of its course, the nature of the delirium, the condition of the abdomen, and the state of the leg, this case presents many features allied to those of the fever of the parturient female. Its connection with erysipelas appears to be established by the condition of the skin of the calf of the leg and scrotum.

Dr. CONDIE. The cases described by Dr. Morris are interesting. They correspond, in their main features, with many that have been recorded by recent observers, and with what I have repeatedly witnessed in my own practice. There can exist no doubt now of the connection that exists between certain affections of the serous and mucous membranes and the disease described as erysipelas, but which would appear to differ essentially from the strictly local and sporadic disease to which that name has been usually applied.

The last speaker referred to a swelling of the submaxillary gland as the first symptom in one or more of the cases described by him, and which he appeared to think, if I understood him correctly, was a form of mumps. Now, this latter is a specific disease of the parotid gland; the submaxillary glands may, it is true, in severe cases, become implicated, by the extension to them of the inflammation, but, without any affection of the parotids, no case can, with propriety, be denominated mumps.

Our colleague made use of the term "erysipelatous inflammation of the pleura." To this, I must object. It is true that, when when what has been denominated constitutional erysipelas prevails epidemically, we have, in some cases, erysipelas of external parts alone, while in others, with or without the disease of the skin, we find inflammation of the mouth and fauces, or of the pleura or peritoneum, etc., or of the larger veins, to occur. The condition of the spleen described by Dr. Morris is, also, not unfrequently observed. It is evident that there is something which serves as a pathological substratum to the more obvious changes, and that can only be an altered condition of the blood itself. Accident determines the particular organ in which functional and structural changes shall manifest themselves.

Dr. WALLACE said: In consequence of circumstances which have fallen under my notice, I think it becomes a question whether the College of Physicians ought not to interfere, and endeavor to have the laws for cleansing the city enforced, and other sanitary measures adopted. The only way in which the object in view can effectually be accomplished, is to have the Board of Health empowered to cleanse the city. It is now done by contractors who are not under the control of that Board. So flagrant is the neglect of this subject by those who have charge of it, that the Board are disposed, as conservators of the public health, and under the general powers vested in them by law, to undertake the performance of the duty, independently of the action of Councils.

Dr. CONDIE. I look upon this subject as a very important one. That the streets and gutters, in many portions of our city, are allowed to remain in a most filthy condition, is most certainly true. The very efforts of the authorities to remove the nuisance are so ill conducted as, in many instances, only to aggravate it. The piles of dirt which have been scraped up are allowed to stand, instead of being removed at once, and they are soon trodden down into the gutters, and diffused along their edges, or else choke up their channel and render the water stagnant and putrid. It seems proper that the Board of Health should be invested with full powers to provide for the sanitary interests of the city. Formerly it possessed no power to prevent nuisances, but now it has, we believe, the power, not only to remove existing nuisances, but to prevent their recurrence, by removing the source from which they emanate. If so, it has unquestionably the right to prevent the accumulation of filth in the streets and gutters, and the nuisance thence resulting. I might name a street, through which I have sometimes to pass, where the dirt has been scraped in piles along the gutters, and allowed to remain thus unremoved for a fortnight.

Dr. CONDIE offered the following resolutions:—

Resolved, That this College would invite the attention of Councils to the present uncleanly condition of the streets and water-

courses, which, in the case of a continuance of hot weather, will be very likely to endanger the health of the city.

Resolved, That it is recommended to Councils to direct the Committee of Health of their body to co-operate with the Board of Health on the immediate adoption of proper measures for the effectual cleansing of the streets, highways, and gutters.

Resolved, That a copy of these resolutions, properly attested, be addressed to the City Councils.

The second resolution having been laid on the table, the remaining ones were adopted.

Stated Meeting, August 6, 1856.

Dr. CONDIE in the chair.

Present, nineteen Fellows.

Proposition for Fellowship, 66, was presented.
No other business of public interest was transacted.

Stated Meeting, September 3, 1856.

Dr. BACHE, Vice-President, in the chair.

Present, fifteen Fellows.

Propositions for Fellowship, 67 and 68, were presented.

Stated Meeting, October 1, 1856.

Dr. BACHE, Vice-President, in the chair.

Present, twenty-eight Fellows.

JAMES CHESTON MORRIS, M. D., JAMES AITKEN MEIGS, M. D., and JOHN H. BRINTON, M. D., were duly elected Fellows.

Dr. HAYS related the case of a gentleman who took, by mistake, ten grains of pure veratria in a solution of chloroform and tincture of capsicum without serious results.

The SECRETARY announced the death of one of the Fellows, WILLIAM H. KLAPP, M. D.

On motion of Dr. THOMAS, the Chair appointed Dr. CONDIE to prepare a biographical notice of Dr. Klapp, for publication in the *Transactions*, and also to communicate to the family of the deceased the respect which the College entertained for their late Fellow, and their sorrow at his loss.

Propositions for Fellowship, 69, 70, 71, 72, were presented.

Stated Meeting, November 5, 1856.

Dr. BACHE, Vice-President, in the chair.

Present, twenty-eight Fellows.

The election of a Committee of Publication for the ensuing year being in order, and Dr. JACKSON having declined re-election, the following gentlemen were elected, viz: Drs. FRANCIS G. SMITH, S. L. HOLLINGSWORTH, and EDWARD HARTSHORNE.

Proposition for Fellowship 71 was withdrawn.

Stated Meeting, December 3, 1856.

Dr. BACHE, Vice-President, in the chair.

Present, fourteen Fellows.

Dr. PAUL presented the Treasurer's Report, as follows:—

Receipts and Expenditures of the College of Physicians, from June 6, 1855, *to December* 3, 1856.

RECEIPTS.

From annual contributions	$970 00
" non-payment when due	23 50
" initiation fees	120 00
" building fund from Dr. Wood	1,000 00
" balance from last account	143 83
	$2,257 33

EXPENDITURES.

For sundry bills, herewith presented	$1,163 32
Balance in Treasury, December 3, 1856	1,094 01
	$2,257 33

Signed, JOHN RODMAN PAUL, *Treasurer.*

Dec. 3, 1856.

Dr. WEST presented the following

REPORT OF THE LIBRARY COMMITTEE.

In compliance with the regulation then in force, the last annual Report of the Library Committee was made to the College at the stated meeting in June, 1855. By the revised By-Laws, the time for the reception of their report was changed to the meeting in December; and, in consequence, the present one embraces a period of nearly eighteen months, instead of one year.

In their last annual communication, the Committee took occasion to congratulate the College upon the improved condition and prospects of the library, and announced the receipt of liberal donations of books from different Fellows. They have now the satisfaction to advise the College of further valuable additions; 386 volumes, besides many numbers of periodicals, much needed

to complete broken sets, having been generously given by various Fellows. The College is indebted, also, in the same way, to the widow of our deceased Fellow, Dr. Moreton Stillé, whose considerate bounty the Committee would take this occasion gratefully to acknowledge.

The library at present contains 2,155 volumes, a very large number in comparison with its meagre contents, as some of the Fellows present will recollect, when the library occupied a small and obscure corner of the stair-landing at the old Philosophical Hall.

* * * * *

In the last report of the Committee, it was stated that a catalogue of the library was in course of preparation. This is now completed in manuscript, as the College has been already advised, and the expediency of printing it is respectfully suggested by the Committee for the consideration of the College. Fifty-four volumes have been bound during the year, and several unbound works are now in the hands of the binder. To meet the expense thus incurred, the Committee have on hand a small balance from last year's appropriation; and they respectfully, but earnestly, ask that the College may again award them the usual annual appropriation of $125. They append a statement of their financial operations during the year.

FRANCIS WEST,
SAMUEL LEWIS,
D. PAUL LAJUS.

Library Committee of the College of Physicians in account with said College.

Dr.

To annual appropriation received	$125 00
" cash received from sale of duplicate works	22 74
" cash received from Treasurer to pay bills, as ordered by the College	10 09
	$157 83

Cr.

By cash paid for binding	$21 52
" " " book-cases and shelving	20 00
" " " postage	8 26
" " " porterage	1 56
" " " books	66 59
Balance in hands of Committee	39 90
	$157 83

Dec. 3, 1856.

Dr. CARSON read the following report of

A CASE OF CYANOSIS.

The subject of the following case having lived, in opposition to so many physical obstacles, during a surprisingly prolonged period of time, I have regarded all the details connected with its history as interesting and worthy of record, and have therefore taken considerable pains to note and preserve them.

S. R. was born, in Philadelphia, January 26, 1836, and, at the time of his birth, was a perfect specimen of cyanosis. He passed through the stages of infancy with no unusual derangement of health, not having developed, however, as his brothers and sister, but remaining puny and contracted in his growth.

In April, 1842, he was attacked by hooping-cough, which was of great severity in consequence of the difficulty of respiration on the occurrence of the paroxysm, and attended, from time to time, with profuse hemorrhage from the lungs. From this he recovered slowly, and afterwards, until the winter of 1848, was apparently in good health. I had not occasion to inquire minutely into his condition prior to the attack mentioned, but, at that time, my attention was closely directed towards him, and subsequently, his case was studied attentively. When he was in the best state of physical existence, the following were the features presented: countenance rather dull, except when roused by emotion, with a leaden hue of the skin; expression of the eye clear, but the adnata permeated by deep crimson vessels; lips, gums and tongue, purple; person small, but slowly increasing from year to year; extremities delicate, with a remarkable enlargement and incurvation (from curvature of the nails) of the ends of the fingers and toes, which were as deeply tinctured as the lips and tongue. The chest was narrow and contracted, prominent in front, and evinced a series of phenomena which were constant until his health began to fail, viz: perfect resonance on both sides, before and behind; respiration louder than usual, with no marked signs of pulmonary embarrassment. The impulse of the heart was strong, extending half an inch further on the right side than natural, and seen conspi uously when the chest was exposed; the frequency of beat amounted to eighty per minute. The action of the heart was accompanied with both sounds, the first sound most feeble, and

also a peculiar blowing sound, which was perceptible not only when the ear was applied directly over the heart, but at some distance on the sides of the chest. He participated in the active exercises of boys, at which times I noticed that his respiration was much hurried, but he did not appear to suffer, had a good appetite, good spirits, and an active, inquiring mind, which led him to apply himself to his studies, and to excel in such as were presented in succession with advancing age.

In the year 1843, with the view of determining the effect of position upon the cyanosed condition, Dr. Pepper and myself instituted the following experiments :—

1. When laid upon his back, with his shoulders moderately elevated, the chest presented some prominence over the cardiac region. Impulse of the heart not strong, beats eighty per minute; dulness on percussion of the cardiac region; pulse regular, but feeble; in the carotids, the same as at the wrist. *Bruit de soufflet* distinct. Respiration twenty per minute. The right hand was elevated for two minutes, when it lost its color; while the left, being pendant, increased in blueness. This trial was now reversed, with the same result.

2. He was placed upon his left side, and, in thirteen minutes, the lividity in the lips and the hands, which were placed at rest, horizontally, was diminished, but the left side of the face, where it rested on the pillow, was more injected than the other. In fifteen minutes, no greater effect had taken place. He was now made to lie on his right side, and, in fifteen minutes, as much, but no greater, diminution of the blueness had occurred as when upon the left side.

3. With the view to excite the circulation, we directed him to run up stairs and return. He then presented excessive lividity of the lips, cheeks, and hands, great difficulty of breathing, the heart acting tumultuously, and the pulse rapid and irregular. He was placed on his left side, and, in fifteen minutes, the condition was the same as when this had been practised in the previous experiment. He was again directed to run up stairs, and, on returning with the same symptoms, was laid on his *right side*. In fifteen minutes, the same diminution of color took place, and calmness occurred as before, when he had been placed upon the left side, but not to a greater extent, or more rapidly.

4. After inducing augmented blueness by the same exercise, he was laid upon his back, and here, again, it was ascertained that the excessive lividity disappeared with as much rapidity as when placed either on the right or left side.

During the winter of 1848–9, he had an attack of hemorrhage from the lungs, connected with pneumonia, from which he recovered, and, in the spring, resumed his school duties, but his general health was not so good as previously, and during the ensuing autumn, when the cold weather set in, he was obliged to relinquish his studies, becoming a confirmed invalid, and evidently declining.

April 25, 1850, I visited him, and noted the following symptoms: Much emaciation of the whole frame, with extreme delicacy of the upper and lower extremities; countenance pinched, of a leaden hue; eye dull; lips and tongue of a pale purple; pulse, one hundred and sixteen, quick and thready; respiration, thirty, sighing; impulse of the heart decided, but not forcible; sounds of the heart merged into a rough, rasping sound, heard over the whole front of the chest; respiratory murmur louder than natural in the right lung, both anteriorly and posteriorly. In the anterior of the *left* lung, the sounds were masked by that of the heart, but, posteriorly, the middle lobe presented some dulness on percussion, and a distinct, crepitant murmur. Some cough existed, especially at night, with thick, tenacious sputa. He could not remain long in the recumbent posture. Skin cold and moist; tongue coated; appetite poor; bowels regular; complained of erratic pains, and, of late, has suffered from prolapsus ani. Treatment sustaining, and to relieve his sufferings.

August 1, 1850. From the time before specified, has been gradually failing; the emaciation has become extreme, and the difficulty of breathing has become so oppressive as to preclude repose in the recumbent position; respiration hurried, thirty-five per minute; pulse, quick and tense; skin cool; mucous membranes becoming dry and foul; extremities swelling. The anterior of the chest presented the rough, blowing sound, with bare perception of the two sounds of the heart. There was dulness on both sides of the chest before and behind, and no respiratory murmur discoverable on either side, but, at the upper parts, tubular sounds, and some crepitation, or submucous râle.

16*th*. Patient, after having suffered under almost agonizing pain

through the chest, extending to the extremities, with difficulty of respiration, amounting to asphyxia, the lividity of the face and hands becoming extreme, and cold, clammy perspiration covering his whole body, died at 2 P. M.

Post-Mortem Examination.—Sixty-eight hours after death an autopsy was made. The body was exceedingly thin, and the blue tinge of the skin very apparent. The examination was made by my friend, Dr. F. W. Sargent, from which I took the following notes:—

Chest.—Upon laying bare the sternum, and removing it, strong adhesions were overcome. On endeavoring to remove the lungs, they were found bound to the sides of the chest by strong membranous connections, the result of pleuritis on both sides, but firmer on the left. *Lungs* filled with tubercles as large as peas, as well as in smaller masses, congested, and in some portions hepatized, the posterior portions of both in a state approximating softening, sinking in water. Pericardium adherent firmly to both right and left lung, containing f℥iss of serum. The heart was located with its right edge under the centre of the sternum, the base opposite the second rib, and the apex between the fifth and sixth ribs, length three inches, transverse diameter three inches two lines, much distended with blood, and filled with soft coagula. Auricles distended; *foramen ovale open*, large enough to admit the forefinger (one-half inch in diameter). The *right and left ventricles communicated with each other*, there existing, in fact, but one cavity, the septum being wanting, with the exception of half an inch at the lower part, formed, apparently by a transverse development of the columnæ carneæ. The diameter of the opening between the ventricles was one and seven-eighths inches. The thickness of the walls of the ventricles was very nearly equal—five lines. The substance of the entire organ was flabby. The circumference of the aorta, at its origin, was two and one-sixteenth inches—that of the pulmonary artery was one and five-eighths inches. One of the musculi papillares of the tricuspid valve had its origin at the posterior wall of the right ventricle lower than usual; valve of the foramen ovale natural; the mitral valves, normal, as well as the semilunar of the aorta and pulmonary artery.

Liver, large, deeply-colored; kidneys, firm—apparently natural. The abdominal organs healthy.

There are several points worthy of note in the history of this case. The subject of it lived exactly fourteen and a half years, and, from the time of his recovery from hooping-cough in the spring of 1842, until he was attacked by pneumonia in the winter of 1848, appeared to be in good health. The cyanosed condition, although modifying his growth, and producing the peculiar phenomena connected with it, which have been mentioned, did not affect his spirits, or produce hebetude, but, on the contrary, his mind was active and capable of effort. When in the best state of health, as reported in the notes, his respiration presented perfect resonance on both sides, and was louder than usual. Without apparent pulmonary embarrassment, except when in exercise, yet the extreme engorgement to which the lungs could be subjected was shown by the profuse hemorrhage which occurred during the attack of hooping-cough. From the date of the attack of pneumonia, a difficulty in his respiration exhibited itself, becoming more and more serious in proportion to the advancing disease of the pulmonary structure and its accompanying hypostasis, until, under this combination of local circumstances, he succumbed after an unusually prolonged struggle. *Post-mortem* examination revealed a heart without the septum between the ventricles and patulous foramen ovale, with a marked disparity between the openings of the aorta and pulmonary artery, and disease of the lungs of the most serious nature.

The first aspect of the case from the resemblance to a single heart, might induce the belief that the cyanosis depended upon an equal commingling of venous and arterial blood in the general circulation; this is the causation of the disease which has been adopted by several authorities. Untenable as this supposition has been shown to be by the occurrence of just such malformation in cases where no cyanosis existed, this case does not present this sole aberration; an inequality existed, of a very anormal character, between the aorta and the pulmonary artery. By referring to the admirable paper of M. Bizot,[1] it will be found that

[1] Recherches sur le Cœur et le Système Arteriel chez l'Homme, par J. Bizot (de Génève). Mémoires de la Société Médicale d'Observation, tom. i., Paris.

the circumference of the opening of the aorta, at the age of fifteen years, in the male, is twenty-two and three-fourths lines, while the circumference of the opening of the pulmonary artery is twenty-three and three-fourths lines (the French measurements have been reduced to the English). If we compare the measurements of the same openings, in the heart under consideration, with these, it will be seen that, for the aorta, there is given two and one-sixteenth inches, or twenty-four and three-fourth lines, which is two lines more than natural, and for the pulmonary artery there is given one and five-eighths inches, or nineteen and one-half lines, which is less than natural by four and one-fourth lines. In the normal state of the heart, the opening of the pulmonary artery exceeds that of the aorta by a line, while, in this case, it is less than the aorta orifice, the difference between them amounting to five and one-fourth lines, a little less than half an inch. It cannot be doubted, then, that in this slight enlargement on the one side, and decided contraction on the other, there existed a cause of embarrassment to the circulation, which places the case in the category of those produced by pulmonary difficulty. That the heart had difficulty in emptying itself, is apparent from the constant bellows murmur, which increased as disease of the structure of the lungs set in, and from the strong impulse perceptible on inspection, which accompanied the action of the organ. The walls of both ventricles exhibit a departure from the normal thickness, that of the left exceeding the natural measurement by a line, and that of the right augmented three lines; or, contrary to the usual structural arrangement, which gives four lines for the thickness of the wall of the left ventricle, and one and one-half for the right, they were nearly equal, thus more closely conforming to the idea of a single ventricular cavity. Whether this augmented thickness was congenital or acquired, cannot be determined, but, from the length and breadth of the organ corresponding to the standard measurement, we are induced to believe it was the former.

That difficulty in the pulmonary circulation did exist, although, in the early portion of the history of the case, not sufficiently marked to arrest attention, is clear from the ready occurrence of hemorrhage first under the influence of hooping-cough, and then of pneumonia. The condition of the lungs as found, was, in a

great measure, the result of fixed hypostatic congestion, on which had engrafted itself the tubercular element.

We have been induced to report the case as confirmatory of the views entertained by our lamented fellow-member, Dr. Moreton Stillé, and so well sustained in his inaugural thesis on cyanosis, published in the *American Journal of Medical Sciences.*

Dr. West referred to a case of malformation of the heart and great vessels, reported by him, with some remarks upon cyanosis, to the Pathological Society of Philadelphia, and published among its Transactions, in the *Med. Examiner* for November, 1842.

The case of Dr. Carson confirmed the views which he had then taken in regard to the production of cyanosis.

The subject was a boy, eight years of age, who had exhibited no marked discoloration of the skin, until after an attack of pertussis when he was fifteen months old, and even subsequently to that period, his parents had at times noticed the entire disappearance of the blueness when he was sitting erect, and perfectly quiet.

He was suddenly seized with a violent convulsion, which was repeated on the third day afterwards, when he almost immediately expired. The heart in its substance, its coronary vessels, and in all its cavities, was found, after death, remarkably turgid with dark blood. The actual capacity of the right cavities was nearly double that of the left ones. The foramen ovale was closed. The two ventricles and the aorta communicated by a circular opening about half an inch in diameter. The aorta had an origin from each ventricle. The most interesting peculiarity presented by the specimen, was found in the condition of the pulmonary artery. This vessel was almost entirely occluded at its origin, which presented a small papillary eminence, through which a passage, scarcely capable of admitting a large pin, was continued to the superior corner of the right ventricle. The supply of blood to the lungs was furnished by the ductus arteriosus, which was still open within the pulmonary artery. At the point where this duct opened, there existed a kind of valvular arrangement. The duct passed directly across from the aorta to the pulmonary artery, and at right angles to the course of the latter vessel, occasioning, necessarily, the blood which reached it, to branch off into two directly opposite currents. From this arrangement, it can readily

be seen that the flow of blood from the right ventricle into the lungs must have been greatly retarded, the whole of it, nearly, having to pass at several right angles, after leaving the heart; as a consequence of this retarded movement of the blood, congestion of the whole venous system must necessarily have been produced, that of the skin exhibiting itself in the form of cyanosis.

The venæ cavæ, too, instead of entering the heart separately, were first united into a common trunk, which joined the auricle exactly at a right angle, a further impediment being thus offered to the return of the blood to the heart, of course assisting in the production of congestion throughout the whole venous system.

Dr. CONDIE said: I regard Dr. Carson's case as a very interesting and important one. The number of cyanotic persons who reach adult life, is by no means inconsiderable; many such cases are on record. The causes of cyanosis in children who perish, are often quite independent of cardiac lesions, and still more so in those in which the discoloration is only temporary. In many cases, the blueness disappears immediately after the occurrence of a free discharge from the bowels, and hence I am accustomed, when the skin is purplish, to give a purgative dose of castor oil. In very many cases of alleged or supposed overlying, I have no doubt that the child's death is attributable to imperfect expansion of the lungs. In the course of one year, I met with three such cases. In two of them, a coroner's inquest was held, and, on examination, the lungs were found to be in a state of atelectasis, quite in the fœtal condition, like the liver in texture, and sinking when thrown into water.

Dr. CARSON remarked that a cause of cyanosis, which had not been alluded to by the authorities on the subject, is congenital dropsy, when the mother is suffering from this affection at the period of her labor. He alluded to a case in which the mother was the subject of general dropsy at the time of parturition, and the child, when born, affected with universal watery infiltration, distending the limbs, the body, and the face, was in a deeply cyanosed condition. He regarded the cyanosis as depending upon a similar infiltration into the cellular tissue of the lungs, impeding respiration. As soon as this cause of venous congestion was

removed by the subsequent administration of a purge, the cyanosis disappeared.

Dr. CONDIE said: I am enabled to confirm the remarks made in reference to the causes of cyanosis, by another case in point. I had a little patient affected with œdema of the lungs. As the attack advanced, its color became gradually more and more dusky until it acquired a perfectly cyanotic hue. On examination of the body after death, no lesion having any connection with the symptoms was discovered, except general and complete œdema of both lungs, by which the expansion of the air-cells and the pulmonary circulation were rendered impossible.

The SECRETARY announced the recent death of Dr. EDMUND LANG, one of the Fellows of the College, and stated that the following resolutions of respect for his memory had been prepared by Dr. EDWARD HARTSHORNE, who was unavoidably absent from the meeting:—

WHEREAS the recent sudden death of Dr. EDMUND LANG, in the prime of life, has been just announced to us—

Resolved, That we have heard of the decease of our late Fellow with unfeigned surprise and regret.

Resolved, That although his retiring disposition has prevented him from taking an active part in the proceedings of the College, we nevertheless feel that in his departure we have lost a valued Fellow, eminently fitted, by his varied acquirements as a scholar and physician, and by his superior qualities of head and heart, to attain a high position in his profession, and to do honor to his Fellowship.

Resolved, That we sincerely sympathize with the family of Dr. Lang in their unexpected and peculiarly afflicting bereavement.

And resolved, That be appointed to prepare an obituary notice of the deceased, and to convey to his family the foregoing expression of condolence on the part of the College.

The resolutions were unanimously adopted, and the blank in the last one was filled with the name of Dr. EDWARD HARTSHORNE.

A proposition for Fellowship, 73, was presented.

Stated Meeting, January 7, 1857.

Dr. WOOD, President, in the chair.

Present, twenty-eight Fellows.

ALFRED M. SLOCUM, M.D., ALFRED GREEN, M.D., and SAMUEL D. GROSS, M.D., were elected Fellows, and Prof. E. GINTRAC, of Bordeaux, France, was elected an Associate of the College.

Dr. FOX presented the following

REPORT OF THE TRUSTEES OF THE BUILDING FUND.

The Trustees of the Building Fund respectfully offer their annual report to the College.

On the first of January, 1856, there remained in their hands, uninvested, the sum of fifty-five dollars and eighty-one cents ($55 81).

Since that date they have received, in interest and dividends, the sum of eight hundred and seventy-eight dollars and seventy-two cents ($878 72), and in cash contributions one thousand and fifty dollars ($1,050 00), amounting together to one thousand nine hundred and twenty-eight dollars and seventy-two cents ($1,928 72).

They have also received contributions, in the mortgage loan of the Schuylkill Navigation Company, to the amount of one hundred and thirty-seven dollars and seventy-five cents ($137 75).

With the money received the Trustees have purchased—

Of city 6 per cent. loan $1,600, costing	$1,464 25
And of city 5 per cent loan $500, costing	393 25
Together amounting, at cost, to	$1,857 50

Their account, then, for the year 1856, stands as follows:—

Sum on hand, January 1, 1856	$ 55 81
Whole receipts in cash during the year	1,928 72
Together amounting to	$1,984 53
From which deduct investments made in 1856	1,857 50
And there is left in their hands at this date	$127 03

The following are the securities now belonging to the Fund, with their value at par:—

Of Schuylkill Navigation Company's mortgage loan	$1,100 00
Of Chesapeake and Delaware Canal Company's loan	545 16
Of the Pennsylvania Railroad stock (4 shares)	200 00
Of city 6 per cent. loan	6,100 00
Of city 6 per cent. gas loan	1,100 00
Of city 5 per cent. loan	5,400 00
Of city 5 per cent. gas loan	700 00
Of Spring Garden 6 per cent. loan	1,300 00
Of Penn District 6 per cent. loan	1,700 00
	$18,145 16

At the date of the last report, the amount of the Building Fund invested was, at the par value of the securities, $15,907 41; so that, during the year just closed, there has been an increase of $2,237 75.

If to the amount of investments herein before reported there be added the money on hand and the interest now due, the aggregate will somewhat exceed $18,600; but it will be understood that this is at the par value of the securities, which, at the present market prices, would command a considerably smaller sum; yet it is believed that they are all quite safe, and that the loans in which the investments have been made will be paid in full at maturity.

GEO. B. WOOD,
GEO. FOX,
JNO. RODMAN PAUL,
Trustees.

PHILADELPHIA, *January* 1, 1857.

Dr. NORRIS read a report of the Censors, confirming the Treasurer's account presented at the last meeting.

On motion of Drs. CONDIE and T. H. BACHE, the appropriation for the Library was fixed at one hundred and twenty-five dollars for the current year.

The President re-appointed Dr. JEWELL the Committee on Meteorology and Epidemics.

The following gentlemen were then elected officers of the College for the year 1857.

President.—Geo. B. Wood.
Vice-President.—Franklin Bache.
Censors.—H. Bond, J. W. Moore, S. Jackson, G. W. Norris.
Secretary.—Alfred Stillé.
Treasurer.—J. Rodman Paul.
Librarian.—T. Hewson Bache.
Curator.—John Neill.
Library Committee.—F. West, S. Lewis, D. P. Lajus.
Museum Committee.—E. Hartshorne, W. Hunt, R. P. Thomas.

Dr. Condie read the following

MEMOIR OF WILLIAM HENRY KLAPP, M. D.

It has been very correctly remarked that the life of the physician seldom affords much material for the pen of the biographer. Of the great majority of medical men it is able to record but little beyond the ordinary incidents of human existence that happen alike to all men. Even when called upon to commemorate some master-spirit of our profession, who, by long and profound research, by accurate analysis, or by cautious and repeated observation, has been enabled to reform the doctrines and simplify and render more efficient the practice of medicine, the record is often but a chapter borrowed from the history of the onward progress of our science, rather than, strictly speaking, the biography of the individual.

This does not result from the life of the physician being deficient in events of deep and varied interest, or his character wanting in those traits which attract admiration or serve as examples for encouragement or warning.

The career of the humblest practitioner of the healing art brings him into frequent and intimate contact with scenes where the human heart, with all its mysteries, is laid bare before him, and he is permitted to read there the story of many a life of which the outward acts of the individuals present no intimation.

In the daily performance of his professional duties, but especially in seasons when pestilence pervades the community, paralyzing the stoutest heart with fear, and visiting every household

with death and mourning, the physician exhibits often more real courage and self-devotedness than the hero who culls his laurels amid the crash of contending armies, or in the deadly breach; and, in his ministrations beside the couch of disease, of suffering, and of death, in his intercourse with anxious relatives and friends during the crisis of a loved one's fate, and with the bereaved when his skill has been ineffectual in the preservation of life, the character of the true physician presents far more of moral beauty than that of many whose names history delights to record, or the poet to immortalize in living verse.

But the path through life of the physician is in a great measure concealed from public view. His duties lead him apart from the thronged thoroughfares of the world, to spend his days and nights in the privacy of the sick chamber, save the few casual hours he may be enabled to devote to the domestic circle or to the solitude of the study. Its most striking events become, in consequence, known only to the narrow circle of his patients or his own immediate relatives and friends, and are often of a character too sacred to be obtruded before the public eye.

These remarks are particularly applicable to the career of him whose biography it has become my duty, in obedience to a resolution of the College, briefly to sketch.

With natural abilities of a high order, carefully cultivated by education, and possessed of professional attainments and skill of no mean grade, he devoted himself exclusively to the active duties of an extended and laborious practice; mingling but little with his fellow practitioners, and restrained by an unconquerable modesty and self-distrust from contributing, from the rich stores of his experience, to the general stock of medical knowledge by even an occasional essay in a medical journal. And, although admirably fitted, by a fine literary taste, great amiability of disposition, ready conversational powers, polished manners, and easy address, to succeed in general society, he shrank from mingling in it, even as an occasional relaxation from his professional pursuits. His short career was consequently spent, with all its sacrifices and devotion, its lights and shadows, its wisdom and experience, unknown beyond those at whose bedsides they were realized, or treasured only in hearts whose recent grief we are forbidden to disturb to obtain from thence their revelation.

Dr. William Henry Klapp, the subject of the present brief notice, was born in Philadelphia, on the 14th day of October, 1808.

His father, Dr. Joseph Klapp, was for many years one of the most popular physicians in our midst, engrossing, at one period, the greater part of the medical practice of the southern portion of the city and adjoining districts. He was a gentleman of courtly manners, a cultivated mind, and great professional skill. We recollect him well in our student days as a clinical lecturer in the medical wards of the Philadelphia Almshouse. He then made a favorable impression on us, by the very able manner in which his duties were performed, an impression subsequently confirmed by many years of intimate association.

On his father's side, Dr. Klapp was descended from one of the early settlers and oldest physicians of our country, Dr. George Gillson Klapp. This gentleman, though an Englishman by birth, was of Italian parentage. His literary and professional attainments, we are informed, were of the highest order. After spending the greater portion of a handsome patrimonial estate in travelling throughout the East, with the languages of which he is said to have acquired also many of the customs, and a sojourn of some twenty years in Palestine and Egypt, he returned to England, and commenced the practice of medicine in London; but shortly afterwards emigrated to this country, and settled in South Carolina, about the year 1666 or 1667. He remained in Carolina nearly two years, when he removed to Westchester, Chester County, New York, where he died.

From this ancestor the family of Dr. Klapp appears to have derived a strong predilection for the profession of medicine. We find that, besides the father, uncle, and two brothers, several of the other members of the family, more or less nearly related, were, like the subject of the present biographical notice, practitioners of the healing art.

The mother of Dr. Klapp was the daughter of W. Milner, Esq., of Philadelphia; and among his maternal relations are included some of our most distinguished professional men in the departments of law, medicine, and divinity.

At the proper age, young Klapp entered the collegiate department of the University of Pennsylvania, and, after pursuing the

prescribed course of studies, he was admitted, on the 26th day of July, 1827, to the degree of Bachelor of Arts.

His proficiency as a linguist, and in classical literature generally, caused him to be selected to deliver the classical oration at the public commencement of the University of that year. The discourse pronounced by him on the occasion was, I am assured, of a character considerably above the ordinary standard of similar collegiate productions.

The love he acquired at the University for classical and polite literature was warmly cherished throughout life. It was a welcome solace to him in many a dreary hour as he watched by the bedside of a patient, and it gave to his conversation a richness and a polish that were highly appreciated by the few before whom his excessive modesty permitted him to display, to their full extent, his intellectual powers and attainments.

Immediately after his admission to the baccalaureate, young Klapp commenced the study of medicine under the immediate direction of his father, in whose office, in common with his fellow pupils, he was afforded opportunities for the acquisition of, not merely the elementary branches of a medical education, but also, the leading principles and practice of the profession, which are but rarely extended to private office students.

Dr. Joseph Klapp took always a deep interest in the progress of those intrusted to him for medical instruction. He was not content to allow his pupils to lounge listlessly over the pages of the books indicated for their study. He saw that they comprehended and profited by what they read. At the same time, with a rare talent for imparting oral instruction, so as to render whatever he discoursed of pleasing and intelligible to his hearers, and to impress firmly upon their minds such particulars as threw light upon the pathology, diagnosis, or treatment of disease, he was accustomed, at stated intervals, to converse with them familiarly on medical subjects. In these professional conversations with his pupils, Dr. Klapp drew his facts and illustrations almost exclusively from the stores of his own experience, thus giving to his oral teachings a freshness, vigor, and authority which are always productive of a beneficial influence upon the mind of the learner.

The number of his office patients, and his extensive practice

among the poorer classes, enabled Dr. Klapp to extend to his pupils opportunities for clinical instruction to an extent that is seldom enjoyed excepting by the resident students of a large general hospital.

Young Klapp attended the lectures of the medical faculty of the University of Pennsylvania during the sessions of 1828–29 and 1829–30. To reap from these the largest amount of instruction they were calculated to impart his private studies amply prepared him.

On the 24th of March, 1830, he obtained his diploma of Doctor in Medicine, and forthwith commenced the practice of his profession, in that portion of the then district of Southwark which now constitutes the fourth ward of the City of Philadelphia. Notwithstanding his youth—he being then but twenty-two years of age—he speedily commanded the esteem and confidence of a large circle of patients—a circle, it is true, not at first very remunerative, but still one that bore testimony to the kind manners and the skill of the young doctor, and formed an important medium for his introduction ultimately to a more profitable practice.

In 1832, Dr. Klapp was appointed one of the assistant physicians to the hospital opened by the Board of Health in the Mount Vernon school-house, Catharine Street, for the reception of cholera patients from the District of Southwark during the prevalence of the epidemic in our midst.

This hospital was placed under my care, as physician-in-chief; I can therefore bear testimony, from personal observation, to the able manner in which the duties of Dr. Klapp were there performed.

Impressed with the deep responsibilities of his station, he was constantly at his post, and unremitting in his attentions to the patients, from the moment of their reception to that of their discharge or death; at the same time that he devoted himself with the utmost assiduity to the study of a disease which then, for the first time, had attracted the attention of the medical men of our city. The success which attended the treatment of the cases received into the hospital here referred to was, in no slight degree, attributable to the care and attention which Dr. Klapp gave, during the entire period its wards continued open, to see that in every case the prescribed treatment was fully carried out.

In 1833, Dr. Klapp was married to Rebecca Plumstead, daughter of John Devereux, Esq., an old and respected citizen of his native district.

Upon the opening of the new prison for the county of Philadelphia, in 1838, Dr. Klapp was elected its physician; which office he held for fourteen years—his resignation bearing date February 9, 1852.

Notwithstanding the many and serious disadvantages under which the duties of this appointment were necessarily performed, in consequence of the entire absence of proper hospital accommodations for the sick prisoners, and the contracted size and inadequate ventilation of the cells in which, whatever was the character of the malady with which they were attacked, the patients were obliged to remain, during the entire period of their illness and convalescence, still, by the admirable system of management pursued by Dr. Klapp, and the assiduous attention bestowed by him upon the sick, the mortality of the county prison, in proportion to its population, fell much below what is usual in other prisons, even those which are supplied with roomy and well-constructed hospital departments.

In 1849, the cholera made its appearance among the inmates of the prison, under circumstances calculated to excite the utmost anxiety in the officers and inspectors for the fate of the prisoners. With the view of preventing, if possible, the spread of the disease beyond those first attacked, Dr. Klapp, without delay, directed all such changes in the diet and regimen of the prisoners as could be carried into effect without a direct contravention of law, or an interference with the necessary police arrangements of the prison. So judicious were the measures adopted, and so successful the treatment pursued in those who were attacked, that but very few deaths occurred, and new cases soon ceased to appear.

The officers and inspectors, gratified with the favorable result of the measures adopted by Dr. Klapp, at a regular meeting of the Board, passed, unanimously, a series of resolutions strongly expressive of their high estimate of the promptitude and skill evinced by Dr. Klapp on the occasion, to whose invaluable services they mainly attribute the preservation of the lives of the prisoners amid a fearful epidemic visitation, which, at its onset,

caused well-founded apprehensions to be entertained for the safety of all within the building.

The full amount of credit due to Dr. Klapp for the efficient services rendered by him on the occasion referred to, can be estimated by those only who are aware of the difficulty there exists in carrying into full effect the proper prophylactic measures against a disease like the cholera, among the inmates of a prison, similar in construction and discipline to that of Philadelphia County.

In August, 1839, Dr. Klapp was elected a Fellow of the College, and was one of the early delegates chosen by the Philadelphia County Medical Society to represent it in the American Medical Association. He attended the sessions of the latter body, of 1849, held in the city of Boston; of 1851, held in the city of Charleston; and of 1855, held in the city of Philadelphia. On referring to the minutes of these sessions, we do not, however, find his name mentioned as having actively participated in any of their proceedings. The feeling which withheld him on these, as on all other occasions, from assuming among his professional colleagues that rank and station to which his talents so justly entitled him, was essentially of a morbid character; in common with his friends he deplored its existence, but could not overcome it. "I am aware," he remarked to me on one occasion, "that it causes me to be underrated by my medical brethren, and perhaps by the public generally; but it is to me like the old man of the sea, the more vigorous are the efforts I make to get rid of it, the more firmly it clings to me, the more completely it masters me."

It is but rare, indeed, that the junior members of our profession have had the good fortune to acquire, in the very outset of their medical career, so respectable and extensive a practice as that which fell to the lot of Dr. Klapp; few young physicians ever commanded in an equal degree the esteem and confidence of their patients; nor are there many, young or old, who have, from first to last, devoted themselves with the same untiring assiduity and zeal to their duties as medical practitioners.

Day and night Dr. Klapp was engaged in one incessant round of professional engagements; scarcely, for years, taking the slightest relaxation, beyond the few hours he devoted to his family, or stole from the season of repose to give to study, or those which, once a week, were dedicated by him to the public services of

religion in the Episcopal church, of which he had become in early youth, and continued throughout life, a sincere and devoted member.

Naturally of a frail constitution, and liable, from a strong hereditary predisposition, to the attack of serious disease, the ill effects of the incessant occupation, and the undue amount of labor, both physical and mental, that Dr. Klapp imposed upon himself, became soon apparent. After the first few years, he found himself often broken down by it, and occasionally was confined to his bed by attacks of severe illness. Subsequently to his recovery from a protracted rheumatic affection—which had more of the neuralgic than of a strictly inflammatory character—symptoms of unmistakable cardiac disease developed themselves, and were more or less troublesome throughout the remainder of his life. Every year his health became more and more impaired, and his attacks of illness more frequent and of a graver character. Finally, when too late to be of any essential service, the necessity of occasional seasons of rest and recreation was forced upon him. He also perceived the propriety of restricting the circle of his practice within much narrower limits.

On the 5th of July, 1855, he suffered from an attack of disease of a far more alarming character than any he had previously experienced, inasmuch as it appeared to implicate deeply the nervous centres. But nothing could induce him to submit to that amount of rest and confinement which were so essential to his full and permanent recovery. So soon as he was able to go about again, he insisted upon resuming his professional duties. But he soon found, upon making the effort, that this was impossible. In the house of almost the first patient he attempted to visit he fell suddenly into a state of entire and prolonged unconsciousness, from which he could with great difficulty be aroused. He was conveyed home by his coachman, and for some considerable time he lay in a condition that afforded but slight hope for his recovery.

Serious, however, as was this attack, Dr. Klapp so far recovered from it as to be enabled to retire into the country, where he confidently hoped he would soon become completely convalescent, and be enabled to devote the summer and autumn to travel, and, with renewed health and strength, return, in the beginning of winter, to his home and practice.

On the 29th of August he paid a visit to Burlington, N. J., and had been scarcely removed from the ill-fated train, when the dreadful catastrophe occurred which will render that day one of melancholy notoriety to the numerous families whose relatives and friends then suffered a cruel and untimely death, unwarned and unprepared. Weak as he was, Dr. Klapp evinced less joy at his own almost miraculous escape, than compassion for the victims and suffering survivors of the frightful accident. He could scarcely be restrained from having himself conveyed to the immediate scene of the catastrophe, "where," he remarked, "if I cannot, by reason of my infirmities, assist with my own hands, I may still be of some service, by giving the necessary directions."

The suffering and distress by which, on this occasion, he was everywhere surrounded, and in the relief of which he was unable to participate, the excitement of the people, the exaggerated reports brought to him from time to time, coupled with his own feelings when he contemplated his narrow escape, no doubt tended to re-excite the disease under the effects of which he was still laboring. On his return home, soon afterwards, he experienced a renewed attack of paralysis; from the immediate effects of which he, however, recovered, and continued free from any actual suffering—but feeble and exhausted—until within a week or two of his death, which occurred on the evening of September 28, at $7\frac{1}{2}$ o'clock, he being then within a few weeks of the forty-eighth year of his age. He passed away, as it were, in a gentle sleep, with scarcely a struggle.

To within a few hours of his dissolution he retained the full possession of his intellectual faculties, and during the entire period of his sickness he exhibited, invariably, the same kindness and amiability of disposition, the same entire resignation, which had characterized him throughout life.

In Dr. Klapp were united all the qualities necessary to constitute the successful medical practitioner. To a refined and cultivated mind, polished and agreeable manners, great amenity and evenness of temper, and unremitting devotedness to such as were placed under his professional care, he added sound views of the theory and practice of his profession, habits of close and accurate observation, a fertility in resources, and a promptitude in their

application to meet those sudden and unexpected occurrences that are occasionally encountered in the course of violent and obscure diseases.

Had not a morbid sensitiveness, and a too humble estimate of his own abilities, compared with those of his contemporaries, held him back from that active participation which, in mind and manners, he was so well qualified to take in the several medical organizations upon whose rolls of membership his name was inscribed, and from communicating in writing, through one or other of the mediums that were open to him, the results of his observation and experience, his true worth as a physician would have been early recognized and acknowledged, and his name, we feel certain, would have been assigned a very high rank among the medical men of our State and country.

Dr. Klapp may be considered as having fallen a victim, in a great measure, to an excessive devotion to the practical duties of his profession. His labors in the sick room were too incessant and exclusive to be sustained for any length of time by even the strongest constitution, but were eminently destructive of one in which, like his, there was a strong inherited proclivity to disease, and that required frequent intervals of relaxation and repose to insure to its possessor a prolonged season of usefulness. Notwithstanding his health frequently broke down beneath his unremitting toil of body and of mind, of the warnings thus given to him he took no heed, but, believing that his obligations to his patients were paramount to all considerations of a personal character, after each attack of illness he returned to his round of labor with unremitting ardor, until, finally, the nervous system, kept too long and continuously upon the stretch, gave way, and the once active mind and untiring body were prostrated in utter helplessness, and, after lingering on for a few months in this condition, sank into the grave, while the freed spirit arose to meet the Saviour in whom, from youth to manhood, amid each vicissitude and trial of life, it had ever trusted with a full and unwavering faith.

Dr. Klapp leaves behind him a widow and seven children, together with a large circle of attached friends, who fully appreciated his many excellencies, and sincerely deplore his early loss.

On motion of Dr. THOMAS, it was ordered that one hundred extra copies of the Memoir of Dr. Klapp be placed at Dr. Condie's disposal.

CASE OF POISONING BY OPIUM.

Dr. GOBRECHT called attention to a case of poisoning by opium, in a child aged *twelve months*, which came under his notice in the latter part of Nov. 1856.

The child was said to have had administered to it about a *teaspoonful* of laudanum, with castor oil in equal quantity, in mistake for syrup of rhubarb, at about seven P. M.; for about half an hour it was unusually wakeful, and the error was not detected until it was placed in its cradle, when stertorous respiration supervened.

Some length of time was consumed in the ineffectual search for a physician, so that it was half past nine o'clock when I saw the child, about two and a half hours after the administration of the poison. He had, however, taken by previous advice, Cupr. Sulph., gr. j, Ipecac., gr. ij, in divided doses, during fifteen minutes, but without any result. This I followed with Zinci Sulph., gr. j, Ipecac. gr. $\frac{1}{3}$, intending to repeat the dose if required, and applied the poles of an electro-magnet to the nape of the neck and the pit of the stomach, with low power, to aid in vomiting, but without effect. But the rapidly increasing insensibility of the child, with pin-head pupils—determined me to use the stomach-tube. With a male catheter and a two ounce syringe, I washed out the stomach, and as an attempt at vomiting seemed to be produced by the distension of the organ after a little time, I withdrew the tube—a single regurgitation followed, and the infant sunk back exhausted and as pale as death. Stimulation with small doses of strong coffee and brandy, caused it to rally—when I again washed out the stomach; the fluid thus passed through the organ was starchy in appearance, and sour to smell, but with the very faintest odor of opium—showing that in all probability the laudanum had been almost entirely absorbed. As the infant rallied a little and could be roused by some exertion, it was shaken, walked up and down, slapped, and stimulated by coffee and brandy, until eleven o'clock; when suddenly it seemed to be impossible to keep it longer awake, its head falling on the shoulder, and its surface being cold and pale,

the pupils remaining contracted; in short, the exertions to prevent its falling into irrecoverable stupor, were necessarily so active, that I feared that even if it resisted the opium, it might eventually die of exhaustion. I therefore, having partly wrapped the two poles of a powerful electro-magnetic machine in towels, by which to hold them, applied one pole to the nape of the neck, and the other to the pit of the stomach, for the purpose of keeping up artificial respiration, and the action of the heart. I commenced with the lowest power without much effect, and gradually drew out the keeper of the magnet to its full extent; even this for some time resulted in very little good, so little that at about half past twelve I believed the case entirely hopeless; but by constantly removing and reapplying the pole, with this full power, at the nape of the neck, every few seconds, I was enabled to produce a perfect respiratory act, and decidedly to increase the action of the heart. This condition continued as long as the electro-magnet was used, but when the latter was discontinued for a little, these actions would become slower and weaker, and almost cease. Finally by its continued use I perceived a faint blush on the scalp, which increased, the child stretched itself backwards, raised its head, the face was suffused, it opened its eyes, and the pupils dilated. On suspending again the use of the instrument, it relapsed into almost its former condition. This happened many times, each time the infant coming quicker under the influence of the magnetic current.

The proceedings, as before mentioned, were continued until two o'clock, just three hours, when, on stopping the machine, respiration and the action of the heart continued undisturbed; the pulse was full; the skin red and warm; and a warm sweat broke out on the forehead; the child continued in a gentle sleep for half an hour, and then raising its head and opening its eyes, with the pupils naturally dilated, recognized its nurse and parents, played with its toys, and was quite well.

It has never had an unpleasant symptom since.

The instrument employed (Kidder's, large size) was of such power as to produce the most violent effects on myself and others when tested; but acted in no other way upon the child, than by producing artificial respiration, at least, until the close of the proceedings, when general contractions and some pain were made evident.

The Librarian reported the following donations to the Library:—

From Dr. STILLÉ: Camper, Demonstrationum Anatomico-Pathologicarum, Liber Primus. Folio.

From the Publishing Committee of the American Medical Association: Transactions of the Am. Med. Assoc. Vol. IX.

From Dr. WOOD: A Treatise on Therapeutics and Pharmacology, by G. B. WOOD, M.D. 2 vols., 8vo.

Propositions for Fellowship, 75 and 76, were presented.

SUMMARY

OF THE

TRANSACTIONS OF THE

COLLEGE OF PHYSICIANS

OF PHILADELPHIA.

FROM FEBRUARY 4, TO JUNE 3, 1857, INCLUSIVE.

Stated Meeting, February 4, 1857.

Dr. Wood, President, in the chair.

Present, fourteen Fellows.

Dr. Alfred M. Slocum appeared and signed the Constitution.

Stated Meeting, March 4, 1857.

Dr. Wood, President, in the chair.

Present, nineteen Fellows.

Dr. Samuel D. Gross was introduced and signed the Constitution.

Dr. W. Jewell then presented the

REPORT ON METEOROLOGY AND EPIDEMICS FOR 1856.

In estimating the prosperity and health of any community, it has been well said, that the mortuary condition of its people involves a large share of the account. But this mortuary condition, can only be reached by collecting and recording facts relat-

ing to mortality. Facts thus collected, should be systematically arranged under various heads and be preserved and published in the form of mortality tables.

A complete system of mortuary statistics for our city has not yet been secured; nor shall we ever succeed in obtaining it, until we enjoy the advantages of an approved registration law, accompanied by a cheerful readiness on the part of the members of our profession, to sustain and carry out all its legal provisions. In no other way, can we form correct opinions for the cause of many diseases now hid in mystery. In no other way can we rightly estimate our comparative health and prosperity.

Under existing laws, we may approximate the number of deaths, in a given period, and be able to tell the sex, age, color, and sometimes the disease; but as regards the exact locality of each death, the occupation, the nativity of the deceased and whether married or single—information indispensable to the formation of correct mortuary statistics, we are entirely deficient.

Medical certification has ever been considered the only true evidence of the cause of death. So it should be. For a long time, however, we have suspected the orthodoxy of a large share of this testimony, and those who have taken the time to investigate the subject, though it may have been in a partial manner, will readily agree with us, that the so-called medical certificates are not at all times, and under all circumstances, to be relied on for their truthfulness, emanating, as hundreds of them do, from ignorant and unqualified persons.

We must, however, use the scanty resources of the record as we find them. Imperfect as the material is, we have reason to be thankful, for the smallest favors, when we remember how unwilling our legislative authorities have ever been, to throw around our profession, a state standard of medical qualifications, as a protective shield, against those numerous debasing influences, which tend to deteriorate its usefulness and degrade its claims to confidence and respect.

In our report for 1855, we endeavored to estimate the population of our city from the best evidence in our possession. At that time we represented it as five hundred thousand, and remarked that it was "no exaggerated estimate." Since then, we have been

assured, that our calculation by underrating the true increase of population, did injustice to the growth of our city, as well as to our own comparisons of its annual mortality to population, when compared with that of other large cities.

To make amends for this unintentional error, we shall fix the number of our population in the present calculation at 550,000, which in all probability is a nearer approximation to the reality than was 500,000 for 1855.

TABLE No. 1.—*Abstract of Meteorological Observations made at Philadelphia, Pa., Lat.* 39° 57′ 28″ *N., Long.* 75° 10′ 40″ *W. from Greenwich, for the year* 1856. By Prof. JAMES A. KIRKPATRICK.

1856.	BAROMETER REDUCED TO 32° F.					THERMOMETER. (F.)					DEW-POINT, 2 P. M.				Force of vapor, 2 P. M.	Relative humidity, 2 P. M.	Rain and melted snow.	WINDS.
	Monthly mean.	Monthly maximum.	Monthly minimum.	Monthly range.	Mean daily range.	Monthly mean.	Monthly maximum.	Monthly minimum.	Monthly range.	Mean daily range.	Monthly mean.	Monthly maximum.	Monthly minimum.	Mean daily range.				Monthly resultant; No. of times in 1000.
	Inches.	Inches.	Inches.	Inches.	Inches.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Inches.	Hund'ths.	Inches.	
January . . .	29.870	30.381	29.266	1.115	.207	23.59	42	—5	47	6.5	18.77	35.1	—5.3	40.4	.108	.70	3.368	N. 55° 50′ W., 728
February . . .	29.731	30.382	29.139	1.243	.228	26.73	48½	2½	46	8.1	18.43	34.6	—5.9	40.5	.112	.60	1.128	West, 456
March	29.773	30.162	29.234	.928	.165	33.35	49	4	45	5.3	24.42	39.8	—1.2	41.0	.139	.57	2.039	N. 80° 47′ W., 543
April	29.814	30.273	29.277	.996	.180	54.46	80	23	57	6.6	42.66	57.2	18.3	38.9	.290	.52	3.149	S. 73° 37′ W., 224
May	29.785	30.147	29.392	.755	.133	62.66	83½	39	44½	7.0	44.81	62.5	27.4	35.1	.312	.49	2.334	N. 59° 37′ W., 215
June	29.781	30.054	29.553	.501	.083	77.23	98	54	44	4.7	62.38	73.3	48.6	24.7	.576	.55	1.677	S. 45° 48′ W., 346
July	29.709	29.998	29.447	.551	.095	80.06	100	60	40	3.9	61.01	76.4	46.3	30.1	.553	.44	1.127	S. 85° 22′ W., 247
August	29.765	30.046	29.356	.690	.092	72.15	97	47	50	4.1	60.81	71.5	49.4	22.1	.545	.56	5.186	S. 89° 15′ W., 254
September . . .	29.886	30.157	29.513	.644	.082	66.16	90	39	51	5.0	56.45	72.2	31.2	41.0	.480	.55	5.702	S. 73° 30′ W., 189
October	29.982	30.225	29.573	.652	.133	53.42	78	28	50	7.3	42.27	66.0	10.9	55.1	.305	.52	1.303	N. 87° 45′ W., 338
November . . .	29.956	30.399	29.266	1.133	.147	43.12	69	23	46	7.8	33.43	65.8	16.1	49.7	.215	.52	2.886	N. 82° 30′ W., 261
December . . .	29.961	30.678	29.100	1.578	.225	30.11	53⅛	4⅛	49⅛	6.3	22.26	51.6	—3.4	55.0	.134	.62	3.619	N. 80° 0½′ W., 370
Annual means .	29.834	30.678	29.100	1.578	.147	51.92	100	—5	105	6.0	40.64	76.4	—5.9	82.3	.314	.55	33.518	N. 87° 46′ W., 298
Winter	29.840	30.445	28.946	1.499	.232	29.27	60	—5	65	7.0	22.42	57.3	—5.9	63.2	.134	.65	9.502	N. 73° 40′ W., 366
Spring	29.791	30.273	29.234	1.039	.159	50.16	83⅛	4	79½	6.3	37.30	62.5	—1.2	63.7	.247	.53	7.522	N. 82° 6′ W., 306
Summer	29.755	30.054	29.356	0.698	.090	76.48	100	47	53	4.2	61.40	76.4	46.3	30.1	.558	.52	7.990	S. 68° 33′ W., 357
Autumn	29.941	30.399	29.266	1.133	.121	54.23	90	23	67	6.7	44.05	72.2	10.9	61.3	.333	.53	9.891	S. 89° 30′ W., 260
For 5 years . .	29.893	30.709	28.895	1.814	.151	53.71	100⅛	—5	105⅛	5.7	44.86	78.5	—5.9	84.4	.347	.59	42.512	N. 71° 38′ W., 227

We are indebted to our friend, Prof. James A. Kirkpatrick, of the Philadelphia High School, for the accompanying abstract of his meteorological observations for the year.

From this abstract it appears that the mean temperature of the year was 51.92°—less by 2.13° than that for 1855—and 1.79° less than for 5 years.

The maximum temperature was 100°—the minimum 5° below zero—the range 105°—namely, from 5 degrees below zero on the 9th of January, to 100 degrees above, on the 18th of July.

January was the coldest month in the year, the mean of the thermometer being 23.59°.

July was the warmest month; the mean temperature being 80.06°.

April was the most variable, the maximum degree standing at 80°—the minimum 23°—the range 57°.

The least changeable month was July, the range of the thermometer standing at 40°—while the mean daily range was only 3.9°.

The barometer gave the mean pressure of the atmosphere for the year, as 29.834 inches. The range 1.578 in. from 29.100, on the 14th of December, to 30.678, on the 18th of the same month.

The lowest mean of the barometer for any one month was in July, 29.709 in. The highest was in October, 29.982 in.

The mean dew-point for the year was 40.64°, the force of vapor .314, while the relative humidity of the atmosphere was .55.

The amount of rain and snow that fell during the year was equal to the mean, 33.518 in. September yielded the highest number of inches, 5.702—while July gave the lowest, 1.127.

The mean temperature for the winter, was 29.27°, that of spring was 50.16°, summer, 76.48°, and autumn, 54.23°.

The coldest day of the year, was the 9th of January, when the mean of the thermometer was one degree below zero. In 1855, the coldest day was January 6th, when the mean of the thermometer was $4\frac{1}{2}$° above zero.

The hottest day was the 30th of June (the same as that of 1855), the mean of heat being $90\frac{1}{2}$ degrees. In 1855 it was $88\frac{3}{4}$°.

The deaths for 1856 as pr. the accompanying table (No. 1*,) arranged from the Health Office record in four quarters, and exhibiting the number of deaths from each disease monthly, with the sexes, the adults and minors, amounted to 12,334. This shows an increase over those for 1855 of 8.23 per cent.

Of this aggregate of deaths, 6,359 were males, and 5,975 were females, while the minors, or those under twenty, amounted to 7,851, and the adults to 4,483.

By a reference to former statistics, it will be seen that the excess of mortality in males is unusually small, amounting only to 3.11 per cent.; less than one-half the excess, as shown for each of the years 1853–4–5. This exhibit, makes it appear that the causes of death, generally, are more active in the male than the female sex.

The deaths to every thousand of the population, have been as 1 in 22.425, fixing the population at 550,000; and to the whole population, as 1 in every 44.592.

Of the entire population, 2.24 per cent. have perished from disease and accidental causes, during the year, and on an average, 33.33, have died daily.

In the annual mortality, 612 stillborn children are included. Deducting these from the total, will leave 11,722 deaths from disease and other causes, which gives the deaths to population, as 1 in every 46.920.

A still more favorable computation may be had, if we base the calculation upon the deaths from accredited diseases alone. By this method, we secure a more definite estimate of the health of our city than otherwise, but to effect this, it becomes necessary to throw out the number of deaths reported under the following heads:—

* See page 106, at close of article.

Casualties	158
Burns and scalds	57
Concussion of the brain	3
Exposure	9
Drowned	115
Poisoning	7
Strangulation	2
Suffocation	10
Suicide	37
Violence	4
Country, from the	132
Debility	430
Fracture	13
Malformation	24
Old age	172
Stillborn	612
Unknown	257
Wounds	1
Heat	4
Exhaustion	19
Starvation	1
Amounting in all to	2067

which aggregate, taken from the entire mortality (12,334), will leave the annual number of deaths from registered diseases, 10,267, making a difference of nearly 17 per cent. less than the estimate on the entire number of deaths for the year.

By this calculation we have only 1 death in every 53.55 of the population, or to every thousand, as 1 in 18.667.

The aggregate of deaths on record (12,334) includes 604 from the Almshouse; 605 blacks, and 132 from the country. Hence it appears that the Almshouse population has supplied only 4.89 per cent. of the deaths for 1856, while for the previous year, 1855, they amounted to 7.59 per cent. The number of deaths from this institution being 2.70 per cent. less than in 1855, while the population was larger.

The colored population of Philadelphia County in 1850, according to the United States census, was 19,761. Assuming that it has

increased since then, in the same ratio with the white population, it will give us about 25,500 colored inhabitants. If this calculation is any approximation to a correct one, we may set down the deaths in our black population as equal to 1 in every 42.16.

The next table (No. 2) presents the number of deaths from those diseases incident to the lungs and air-passages. They amount in the aggregate, to 2770, equal to 22.77 per cent. of the mortality, exclusive of stillborn. This calculation does not include the deaths from hooping-cough, of which disease there were 77 deaths for the year.

The mortality for the year, from this class, has increased 184, or 3.43 per cent. over those for 1855—while the percentage, to the aggregate mortality for the year is exactly 3.43 per cent. less than for 1855. This result is attributable to the aggregate deaths for 1856, having increased 8.58 per cent. over those for 1855. This increase will be found in the deaths recorded from consumption of the lungs.

The first and fourth quarters of the year exhibit an increase of 284, or 10.25 per cent. above those for the second and third quarters.

The deaths from croup included in this class, show only an increase of three over those for 1855, while they contribute nearly 10 per cent. of all the deaths from the diseases of the lungs and air-passages.

The deaths from inflammation of the lungs have fallen off 6 per cent. from those of last year. Hooping-cough presents, also, a slight decline in its deaths.

During this year, consumption of the lungs, inflammation of the lungs, inflammation of the bronchi and croup, make up 86 per cent. of all the deaths from diseases of the lungs and air-passages.

TABLE No. 2.—*Mortality from Diseases of the Lungs and Air-passages.*

DISEASES.	ANNUAL AGGREGATES.		QUARTERS OF 1856.			
	1855.	1856.	1st.	2d.	3d.	4th.
Abscess, pulmonary	9	1	...	...	1	...
Angina pectoris	5	5	1	3	...	1
Apnœa	...	1	1	...	...	...
Asphyxia	28	28	1	10	6	11
Asthma	19	21	6	5	7	3
Collapse of lungs	...	1	...	1	...	...
Congestion of the lungs	82	97	17	32	20	28
Consumption, laryngeal	1	1	1	...	...	...
" of the lungs	1327	1501	394	380	370	357
Croup	265	268	85	44	41	98
Disease of the chest	10	6	2	2	1	1
" lungs	33	37	8	12	8	9
Dropsy of the chest	48	61	16	15	10	20
Effusion on the chest	3	7	1	5	...	1
" lungs	7	4	...	...	2	2
Emphysema	...	2	1	...	1	...
Empyema	...	2	1	1	...	...
Gangrene of the lungs	1	...	...	...	...	...
Hemorrhage from the lungs	21	28	5	6	4	13
Influenza	4	2	1	1	...	...
Inflammation of the bronchi	233	250	90	57	24	79
" " chest	10	7	3	2	...	2
" " larynx	13	34	11	8	3	12
" " lungs	442	379	111	92	58	118
" " pleura	24	16	2	5	2	7
" " trachea	1	9	1	...	3	5
Ulceration of larynx	...	2	1	1	...	...
Totals	2586	2770	760	682	561	767
Hooping-cough	90	77	22	21	20	14
Totals	2676	2847	782	703	581	781
Total mortality, exclusive of stillborn	9869	11,722				
Per cent. from diseases of the lungs	26.20	22.77				
Per ct. from consumption of the lungs	13.45	12.80				

Table No. 3 embraces all the deaths recorded during the year, from consumption of the lungs. It gives the distinct totals for each period of life, from infancy to ald age, and furnishes the sexes, that have died during the year, within those periods.

The whole number of deaths from this disease was 1501; numerically greater than for any former year on record by 8 per cent.

From this analytical table we learn that 692 males and 809 females have died. The deaths among females have exceeded those among males by 7.12 per cent. Towards the annual mortality from all causes, it contributes 12.83 per cent. This is a fraction less than last year. To the population they were as 1 in every 366.42, and to each thousand of that population as 2.72, a fraction more than in the previous year.

Of the diseases appertaining to the lungs and air-passages, consumption furnishes more than one-half the deaths. A large percentage.

No age, sex, or period of the year is spared the ravages of this frequent destroyer of human life. In the table before us, they are to be found from within one year to ninety. The heaviest mortality, at any period of life, equal to 33.17 per cent. was between the ages of 20 and 30, when there occurred 498 deaths. In the next decennary period, that is, between 30 and 40 years, there were 334 deaths, making in all between 20 and 40, the two most important and active periods of existence, 832 deaths. More than 55 per cent. of the entire mortality from consumption of the lungs.

The month of April for this year supplies the heaviest mortality, viz., 166 deaths. January averages 166, while November contributes the least, viz., 84.

The deaths from consumption will average over $4\frac{1}{2}$ per day throughout the year.

TABLE No. 3.—*Tabular Statement of the Deaths from Consumption of the Lungs, during each Month in the year* 1856, *at fifteen distinct periods of life, with the Sexes designated for each month.*

AGES.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Under 1 year	1	1	5	3	4	3	7	5	1	1	3	2	36
From 1 to 2 years	3	...	...	7	2	2	3	2	4	6	2	2	33
" 2 to 5 "	3	3	3	11	6	8	5	2	1	5	1	5	53
" 5 to 10 "	1	1	4	...	3	...	2	2	...	...	4	3	20
" 10 to 15 "	5	2	1	3	2	1	2	...	4	2	2	...	24
" 15 to 20 "	18	14	5	6	6	11	13	4	3	8	14	9	111
" 20 to 30 "	55	42	45	56	35	35	44	43	39	47	22	35	498
" 30 to 40 "	31	23	29	33	35	13	35	24	26	40	16	29	334
" 40 to 50 "	24	16	10	19	11	14	19	18	10	14	14	16	185
" 50 to 60 "	11	9	7	16	7	7	16	8	10	14	6	8	119
" 60 to 70 "	6	4	5	8	...	6	4	3	5	11	3	7	62
" 70 to 80 "	1	2	1	4	1	1	2	1	3	3	1	1	21
" 80 to 90 "	1	1	1	...	1	...	...	...	...	...	1	...	5
" 90 to 100 "	...	...	...	...	...	...	...	...	...	...	...	...	...
" 100 to 110 "	...	...	...	...	...	...	...	...	...	...	...	...	...
Male	83	49	50	82	48	46	63	49	48	72	38	64	692
Female	77	69	66	84	65	55	89	63	58	79	51	53	809
Monthly totals	160	118	116	166	113	101	152	112	106	151	89	117	
Quarterly totals	394			380			370			357			1501

Table No. 4 contains the deaths from those affections incident to the nervous system. These amount to 1976, or 16.87 per cent. of the mortality. Exceeding the mortality of 1855 by upwards of 3 per cent.

As usual, some of the most frequently fatal diseases of childhood are embraced within this class, as convulsions, congestion, dropsy, effusion and inflammation of the brain, and teething. These constitute a very large proportion, in all 1474, or more than 74 per cent. This proportion gives an increase of 9 per cent. over that in the preceding year. Convulsions make up quite one-third of the whole mortality under this head. They number 603. The 3d quarter of the year presents the highest mortality from convulsions. The remaining three quarters share about alike.

TABLE No. 4.—*Mortality from Diseases of the Nervous System.*

DISEASES.	ANNUAL AGGREGATES.		QUARTER OF 1856.			
	1855.	1856.	1st.	2d.	3d.	4th.
Abscess of the brain	2	2	...	...	2	...
Apoplexy	110	123	28	32	30	33
Chorea	...	2	...	2	...	...
Catalepsy	...	1	...	1	...	...
Coma	2	2	...	...	1	1
Compression of the brain	3	8	...	1	5	2
Concussion of the brain	1	...	...	...	...	...
Congestion of the brain	175	177	32	39	69	37
Convulsions	626	603	140	140	181	142
Coup de soleil	...	2	...	1	1	...
Cramp	...	11	4	2	2	3
Disease of the brain	97	107	26	23	35	23
Dropsy of the brain	254	242	59	52	91	40
Effusion of the brain	72	94	21	27	27	19
Epilepsy	25	24	9	2	10	3
Hysteria	...	3	3	...	...	...
Inflammation of the brain	288	329	77	72	111	69
" " tympanum	1	...	...	...	...	...
Insanity	1	...	...	...	...	...
Irritation of brain or spinal marrow	1	...	...	...	...	...
Mania or insanity	16	12	4	2	2	4
Mania à potu	25	43	9	7	10	17
Neuralgia	1	1	...	...	1	...
Palsy	106	104	31	28	27	18
Softening of the brain	20	40	7	9	12	12
" " spinal marrow	...	2	1	1	...	...
Teething	16	29	4	6	15	4
Tetanus	17	13	1	4	4	4
Trismus	8	2	...	...	2	...
Totals	1866	1976	456	451	638	431
Puerperal convulsions	15	2	...	...	1	1
" mania	2	...	...	...	...	...
Totals	1883	1978	456	451	639	432
Total mortality, exclusive of stillborn	9869	11722				
Per cent. of total mortality	18 90	16.87				

Table No. 5. Here we have presented the deaths from some of the organs of nutrition. They number 2503, an increase of more than six per cent. over those in 1855.

In proportion to the whole mortality they stand 21.35 per cent. —this is a lower percentage than for the past three years. Yet the aggregate of deaths will be found higher than those for 1853 and 55, and less than those for 1854. This seeming incongruity is owing to the fact, that, in each instance the general aggregate

of deaths has varied in its proportions to the aggregate of deaths from the diseases of the organs of nutrition.

It will be seen in this table that the deaths in the 3d quarter rate very high, in proportion to the remaining quarters. Even higher than all of them combined, amounting to 1513. This circumstance owes its existence to the prevalence of certain endemic diseases, which usually occur during the summer months. The most prevalent, as well as the most fatal of these, is cholera infantum; confined principally to children within two years, and to the third quarter of the year. During 1856 it contributed as many as 722 deaths to the annual mortality; nearly equal to the number for 1854, and 12.11 per cent. higher than those for 1855.

Cholera infantum seems to be on the increase.

The rate to the entire mortality is over 6 per cent., and to that under five years 12 per cent. Both these rates stand higher than for the fifteen years between 1840 and 1854, which were as 5.01 per cent. to the entire mortality, and 10.09 per cent. to that under five years.

The precise locality for these numerous deaths from this peculiar disease of infancy, is most difficult to designate. It is a disease of summer, confined almost entirely to large cities and generally found in the densely inhabited and badly ventilated portions of them. But to trace out these infected sections, cannot be done to any advantage until we have a better system of certification of deaths, and we might add a more perfect medical nomenclature in connection therewith. For we are confident that the returns for the cause of death among children are extremely defective.

Marasmus, another disease of childhood, entered with this class, returns 484 deaths during the year. A higher number than ever before recorded for a given period in this city. Like cholera infantum, a large number of the deaths, nearly one-half, took place within the third quarter.

The most unusual rate of deaths from any one disease to be found in this group, is that under the head of dropsy, which gives 213—rating 31.69 per cent. more than those recorded in 1855, and nearly double the number from the same cause in 1854 and 55. The great disproportion to former years seems to have occurred during the last six months of the year, when the deaths double themselves. In the last quarter of the year one-half the deaths from dropsy were among children. It is not improbable,

therefore, that many of them were the sequence of scarlet fever, which has been very prevalent.

Dysentery in this table furnishes 301 deaths, which are equal to 12 per cent. of the deaths from diseases of the organs of nutrition. The 3d quarter of the year yielded 232, or 77 per cent. This is also a disease of summer and a large proportion of the deaths were among children.

Diarrhœa contributed to this list 149 deaths. Ninety-eight of these are recorded under the 3d quarter, consisting of July, August, and September.

TABLE No. 5.—*Mortality from Diseases of some Organs of Nutrition.*

DISEASES.	ANNUAL AGGREGATES.		QUARTER OF 1856.			
	1855.	1856.	1st.	2d.	3d.	4th.
Abscess	17	40	18	6	5	11
" abdominal	1	...	...	...	...	...
" of the liver	2	1	...	...	...	1
Cancer of the stomach and bowels	18	4	...	2	...	2
Cholera	33	16	1	2	12	1
" infantum	566	722	2	32	676	12
" morbus	29	35	3	3	26	3
Cirrhosis of the liver	7	6	2	3	...	1
Colic	8	17	4	...	7	6
Constipation	2	3	2	...	...	1
Consumption of the bowels	4	3	2	...	1	...
Diarrhœa	177	149	8	23	98	20
Disease of the liver	25	27	3	8	12	4
" " stomach and bowels	20	27	6	4	8	9
Dropsy	110	213	37	37	64	75
" abdominal	31	8	2	1	4	1
Dysentery	266	301	10	20	232	39
Dyspepsia	1	...	...	...	...	...
Gout	4	7	1	1	3	2
Icterus	27	21	1	10	7	3
Ileus	4	1	...	...	...	1
Inflammation of the liver	38	39	10	10	12	7
" " peritoneum	54	68	19	15	13	21
" " stomach and bowels	187	184	43	43	50	48
Intussusception	7	6	2	1	2	1
Marasmus	436	484	63	78	238	105
Obstruction of the bowels	13	9	5	1	3	...
Scrofula	54	61	9	17	22	13
Tabes mesenterica	28	36	7	8	11	10
Tuberculosis	6	...	...	...	...	...
Ulceration of the stomach and bowels	21	15	1	2	7	5
Totals	2196	2503	261	327	1513	402
Total mortality, exclusive of stillborn	9869	11722				
Per cent. of total mortality	22.35	21.35				

Table No. 6 gives the deaths from diseases of the utero-genital organs. They number 161.

The most marked peculiarity in this table is the number of deaths recorded from puerperal fever, viz., 61. A higher ratio by 26 than has ever been recorded in this city for a single year. Of these deaths, 17 came from the lying-in ward of the Blockley Almshouse infirmary, under the care of Dr. Robt. K. Smith, who has given an account of 29 cases of the disease, as it prevailed there, in the April No. of the *Medical Examiner*, 1856. If to these deaths we add the 44 deaths recorded from inflammation of peritoneum in females, the 15 from inflammation of the uterus, the two entered in the table, childbed, and the two puerperal convulsions, we shall have rather a startling number of deaths from diseases familiar to the lying-in chamber. We are not warranted, however, in making this addition. Forty-six of the deaths marked puerperal fever were recorded during the first half of the year.

TABLE No. 6.—*Mortality from Diseases of the Utero-Genital Organs.*

DISEASES.	ANNUAL AGGREGATES.		QUARTER OF 1856.			
	1855.	1856.	1st.	2d.	3d.	4th.
Albuminuria	6	9	...	6	...	3
Amenorrhœa	...	2	1	1	...	...
Cancer of mammæ	7	2	...	1	...	1
" uterus	18	5	1	1	1	2
Childbed	2	2	...	...	2	...
Chlorosis	1	2	...	...	2	...
Convulsions, puerperal	15	2	...	...	1	1
Disease of the bladder	1	1	...	...	...	1
" " kidneys	3	16	4	4	2	6
" " ovaries	3	1	...	...	...	1
" " prostate gland	1	1	1	...	...	...
" " uterus	3	5	3	1	1	...
Dropsy, ovarian	1	1	...	1	...	...
Fever, puerperal	41	69	26	20	15	8
Hemorrhage from uterus	13	7	4	1	1	1
Inflammation of the bladder	5	8	2	4	1	1
" " kidneys	4	7	2	2	3	...
" " prostate gland	1	...	...	...	...	...
" " uterus	8	15	1	6	4	4
Mania, puerperal	2	...	...	...	...	...
Rupture of the bladder	1	...	...	...	...	...
" " urethra	1	...	...	...	...	...
" " uterus	3	...	...	...	...	...
Stone	1	...	...	...	...	...
Syphilis	4	5	1	2	1	1
Tumor, ovarian	2	1	...	1	...	...
Ulceration of the uterus	1	...	...	...	...	...
Totals	148	161	46	51	34	30

Table No. 7 sums up in a single group the mortality from fevers during the year. These amount to the unusual number of 1,428, or 17 per cent. higher than those for 1853; and perhaps an equal amount of mortality from fevers has never occurred before in this city, unless in 1793. The proportion of deaths from fevers to the entire mortality for the year was one in eight, or 12 per cent.

Typhoid fever contributes 229 of these deaths, or 16 per cent.; but it is to scarlet fever that we must look for the heavy increase. Aside from the deaths charged to the account of this fatal disease, the fever record is unusually small, amounting only to 3.63 per cent. of the entire mortality. Scarlet fever, therefore, makes the year a remarkable one, on account of its extensive prevalence and mortality. The deaths amount to 992, and average $2\frac{68}{100}$ per day. To the whole mortality they have been 8.46 per cent.; while to the mortality of children, or those under twenty, they were 12.32 per cent.

The scarlet fever began to show itself in our city early in December, 1855, when, according to last year's report to the College, the deaths ran up from 26 in the third quarter to 66 in the fourth quarter. During the first three months of 1856 they numbered 189. In the second and third quarters there was no increase, but they did not fall off more than 15 in the two quarters. In the mean time the disease continued to spread, and during the fourth quarter, commencing with October and ending January 3, 1857, the record of deaths from scarlet fever stood 438, nearly equal to 5 deaths per day.

Of the entire deaths—viz., 992—there were only 16 that had reached manhood; the remainder—976—were under twenty, and of these a large majority, or 944, had not passed their tenth year. This statement goes conclusively to prove, if there was a single doubt on the subject, that scarlet fever is a disease peculiar to children.

Of the sexes, 490 were males, and 502 females, showing a fractional excess of the latter class. This estimate would confirm an opinion elsewhere expressed, that it has no sexual preferences.

Assuming the position of Dr. Tweedie, quoted by Dr. C. Morris, who reports that six per cent. of his scarlet fever cases died in the London Fever Hospital during a period of twelve years, and which statement he gives as an illustration of what he considers

to be the rate of mortality to cases, and the like percentage having been offered by Dr. G. Gregory as the medium rate of deaths to cases, we may draw the inference that during the year there have been about 16,500 cases of scarlet fever in Philadelphia. These estimates, however, it is well to remember, are not to be relied on. At the best, they are conjectural, as the character of the epidemic, the season of the year, the condition of those attacked, and other circumstances, would always, to some extent, control the results. This exanthem, throughout the whole of its prevalence as an epidemic during the year, appeared in every variety of form, from the mildest to the severer anginose varieties, as well as in the congestive and most malignant. Nor have the sequelæ of the disease been absent. Frequent cases of effusion have followed the disease, and, where death has occurred, we have reason to believe it has been charged in many instances to dropsy, which error, as already alluded to, may account for the unusual increase of deaths from dropsy.

We have never known a greater number of deaths from scarlet fever for the same period and within similar limits. The cases, too, have been numerous. Whole families of children have been stricken down with it at one time, and two and three in the same household have been consigned to the grave as its victims.

Those portions of the city embracing the 16th, 17th, 18th, and 19th Wards, have suffered severely. Almost every family circle has been invaded by the disease. A respectable practitioner residing in the 17th Ward, informed us that he had often visited thirty cases of scarlet fever in a single day, and as many as three or four in a family; that scarcely a family within the limits of his practice, where there were children, had escaped. Some of his cases were of the most malignant type, complicated with affections of the brain, in which the nervous prostration was so great, that, in several instances, in less than forty-eight hours, in spite of his best efforts and the skill of experienced counsel, they were cold in death.

The inquiry has frequently been made, as to the particular sections of our city where the disease was most prevalent, or what sections suffered more than others. This question cannot be answered, with any degree of correctness, through the public docu-

ments in our possession, the location of cases not being recorded. For the purpose, however, of reaching an approximative result, we examined carefully about two hundred certificates of scarlet fever deaths for the month of December, from which we copied the names of 134 different physicians. Of these, 68 resided north of Vine Street, and east of Broad Street; 37 west, and in the immediate vicinity, of Broad Street; and 29 south and east of Vine Street. Using this as the best and only data under the circumstances, we infer that the disease prevailed more extensively in the northern and western sections of the city than elsewhere, and this conclusion is sustained by the opinions of several physicians with whom we have conversed.

While we are ready to believe, with all the writers on scarlet fever, that it is a disease which affects individuals but once, as a general rule, still we have witnessed occasionally its recurrence. During the epidemic of 1856 we witnessed two instances, in different families. In one of these it recurred a second time, and in the other, like that quoted by Sir Gilbert Blane, it returned for the third time, "without the least suspicion of ambiguity;" and we were informed by the father of this child, that several of his (the father's) brothers had passed through the disease twice. Fortunately for mankind, this mysterious susceptibility to the influence of epidemic poisons is but of rare occurrence.

At the close of the year there was no abatement of the disease.

During the third quarter of the year there were four deaths recorded from typhus icterodes. Three of these cases came under our own notice, and we have no hesitation in pronouncing them to have been genuine instances of sporadic yellow fever. The pathognomonic symptoms in each of these were sufficiently clear to establish their identity. The morbid cause giving rise to these cases of fever, is still, and will ever remain involved in more or less obscurity.

Two of these cases died in Beach St. above Maiden, in the 18th Ward, and about the distance of three hundred feet from the Delaware River. They were mother and son, residing under the same roof. The former was attacked on the night of Thursday, July 17th, and died on the following Wednesday. The latter sickened on Friday and died on the next Thursday night. Both

these individuals had black vomit, and their skins changed to a deep yellow color after death. There was another case of fever in the same house at the same time, in a young married woman, which occurred on Sunday the 20th of July, but of so mild a type as to have rendered its true character uncertain. This case was removed immediately from the atmosphere of the house to the City Hospital. The fever yielding on the third day, her system reacted, followed by rapid convalescence. None of the rest of the family, five in number, were sick.

A careful examination of the premises where these cases occurred, satisfied us that there was no apparent existing local cause for the development of a fever malignant in its character; although the Board of Health took possession of and vacated the premises at once, having them thoroughly cleansed and whitewashed, together with the free distribution of chloride of lime, as a precautionary measure. No other cases occurred.

The whole of this family, had indulged freely in eating pine-apples, on the afternoon of Thursday preceding the mother's illness. It is not improper, however, to mention, that these cases of fever happened during the same week, when the water in the Kensington reservoir was discovered to be unfit for drinking, or culinary purposes, from its putrid odor and sickening taste. This was owing to a large amount of debris, consisting of decomposed animal and vegetable material. This filth had been allowed to accumulate for several years on the bottom of the basin, to the depth of eighteen inches, more or less. Many of the families supplied with this water were said to have been made sick, during the few days they drank of it. But how far, if at all, it was active as a morbid poison in the production of these instances of yellow fever, we are not willing to express an opinion. It is more than likely, however, that the free indulgence in the West India fruit, served as the immediate or exciting cause, whatever may have been the predisposing one.

The third case was that of young J. A. . . ., who was engaged in a counting-house on Delaware Avenue between Arch and Race Sts. He left the city for Cape Island, N. J., on Saturday, July 26th. On the evening of his arrival there he was taken ill. His disease proved to be yellow fever, from which he died

on the 8th day following the attack, and was brought to the city for interment. A post-mortem revealed the softened and inflamed lining membrane of the stomach; also the jaundiced or yellow ochre colored liver. The stomach contained a large quantity of coffee-ground matter or altered blood, and in the lower portions of the intestinal canal was seen a black mucus-like fluid.

None of these individuals, as far as we could learn, after the strictest inquiry, had been on board any vessel from the West Indies.

The fourth case of typhus icterodes on record in the 3d quarter was that of a male corpse brought from New York, of whose history we could obtain no information.

TABLE No. 7.—*Mortality from Fevers.*

DISEASES.	ANNUAL AGGREGATES.		QUARTERS OF 1856.			
	1855.	1856.	1st.	2d.	3d.	4th.
Fever	16	10	1	2	3	4
" bilious	36	24	3	5	9	7
" cerebral	2	...	...	...	...	...
" congestive	7	3	1	2	...	...
" continued	1	...	...	...	...	...
" gastric	4	2	...	2	...	...
" hectic	4	2	...	1	1	...
" intermittent	7	14	...	3	3	8
" malignant	2	...	...	...	...	...
" nervous	2	7	2	1	1	3
" pernicious	2	...	...	...	...	...
" puerperal	41	69	26	20	15	8
" remittent	48	22	4	7	5	6
" scarlet	163	992	189	186	179	438
" typhoid	231	229	39	39	71	80
" typhus	59	49	15	2	19	13
" " icterodes	...	5	...	...	4	1
" yellow	3	...	...	...	...	...
Totals	628	1428	280	270	310	568
Total mortality, exclusive of stillborn	9869	11722				
Per cent. of total mortality	6.30	12.18				

Table No. 8. The mortality from measles, as presented in this table, gives a higher rate of deaths than for any previous year. They amount to 141, higher by 48, than for the three pre-

ceding years combined. This increase corresponds with the annual alternate rise and fall for a number of years. The highest mortality occurred within the last half of the year. Measles was on the increase when the year closed. It did not appear to be confined to any particular sections of the city, but like its common accompaniment, epidemic catarrh, was to be found in every part. The congestive variety of measles is said to have been quite prevalent, complicated with inflammation of the lungs.

TABLE No. 8.—*Mortality from Measles.*

DISEASES.	ANNUAL AGGREGATES.		QUARTERS OF 1856.			
	1855.	1856.	1st.	2d.	3d.	4th.
Measles	24	141	4	13	69	55

Table No. 9. Here we have given an analysis of the deaths from smallpox and varioloid during each month in the year and for 15 decennial periods of existence.

The whole mortality has been 415, thus, 390 of smallpox and 25 of varioloid. This shows an increased mortality, and is almost equal to that of 1852, when it stood 437.

Compared with last year, the deaths have increased 18.66 per cent. The heaviest mortality will be found to have taken place within the first five months, after which the deaths fell off rapidly.

The infantile population, as with other exanthems, seems to have contributed a large share of the deaths, equal to 68.67 per cent., including varioloid. Within the first year of existence the deaths stood 90, between one and two years 53, between two and five 91, and between five and ten years 51.

We have no hesitation in attributing this heavy amount of deaths from smallpox among children, to the neglect of public vaccination. Through a false system of economy on the part of the city authorities, the office of Collectors of Vaccine Cases was discontinued. The result of this change was the almost entire neglect of vaccination among the poor, and an increase of deaths from smallpox in children, as the record of mortality for the last

two years will prove. In February, 1856, the Board of Health, in view of the spread of smallpox, and the increase of deaths therefrom, appointed special collectors of vaccine cases for each ward for the period of one month (March). The agents canvassed the entire city, and returned the names of over 6,000 cases of unvaccinated persons, who were immediately vaccinated by the physicians appointed for that purpose. This prompt action of the Board of Health had, no doubt, its influence in checking the further progress of the disease, as about this period the deaths declined. The first quarter of the year furnished 247; the second, 106; the third, 33; and the fourth, 29.

TABLE No. 9.—*Mortality from Smallpox and Varioloid, during the year* 1856, *at fifteen periods of life, with their Sexes.*

AGES.	Jan.		Feb.		March.		April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Total small-pox.	Total vario-loid.
	Small-pox.	Vario-loid.	Small-pox.	Vario-loid.	Small-pox.	Vario-loid.	Small-pox.	Vario-loid.	Small-pox.	Vario-loid.	Small-pox.	Vario-loid.	Small-pox.	Vario-loid.	Small-pox.	Vario-loid.	Small-pox.	Vario-loid.	Small-pox.	Vario-loid.	Small-pox.	Vario-loid.	Small-pox.	Vario-loid.		
Under 1 year	30	2	14	...	5	...	7	...	6	2	4	1	4	...	3	1	5	...	1	...	3	...	2	...	84	6
1 to 2 years.	12	2	11	1	5	1	5	...	4	...	2	1	1	...	...	...	2	1	1	1	1	...	1	1	45	8
2 to 5 "	34	...	16	1	10	...	14	1	5	...	3	...	...	...	3	1	...	...	2	...	...	...	1	...	88	3
5 to 10 "	14	...	8	...	7	...	7	...	3	...	2	...	1	...	2	...	1	...	2	...	2	...	1	1	50	1
10 to 15 "	4	...	5	...	1	...	1	...	1	...	1	...	1	...	...	...	...	...	1	...	...	...	1	1	16	1
15 to 20 "	2	...	3	...	4	...	2	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	14	...
20 to 30 "	19	...	4	1	7	...	6	...	1	...	1	...	2	1	2	...	...	...	...	...	...	...	2	...	44	2
30 to 40 "	4	...	3	...	3	...	6	1	7	...	2	...	...	1	...	...	...	...	...	...	...	...	2	...	27	2
40 to 50 "	1	...	1	1	2	...	2	...	1	1	3	...	...	...	1	...	...	...	...	...	...	...	...	...	11	2
50 to 60 "	5	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	...
60 to 70 "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...
70 to 80 "	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...
80 to 90 "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
90 to 100 "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
100 to 110 "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Males	72	2	36	2	24	1	25	...	15	2	10	1	4	2	9	1	3	...	4	...	3	...	4	2	222	...
Females	53	2	32	2	21	...	26	2	14	1	9	1	5	...	2	1	5	1	3	1	5	...	6	1	193	...
Total smallpox	125	...	68	...	45	...	51	...	29	...	19	...	9	...	11	...	8	...	7	...	8	...	10	...	390	...
Total varioloid	...	4	...	4	...	1	...	2	...	3	...	2	...	2	...	2	...	1	...	1	...	...	...	3	...	25
Total	129		72		46		53		32		21		11		13		9		8		8		13		415	

Table No. 10 presents the aggregate amount of deaths from those diseases and other causes which have been most fatal during the year, or where the number exceeded ninety, together with those for the preceding year.

An examination of this group will show that several of them for 1856 give an increase over the former year. These are apoplexy, casualties, consumption of the lungs, croup, disease of the brain, disease of the heart, dropsy, erysipelas, scarlet fever, inanition, inflammation of the bronchi, marasmus, measles, and stillborn.

Three of these—marasmus, croup, and typhoid fever—show a gradual increase each year since 1850.

TABLE No. 10.—*Causes assigned for Death where the number is* 90 *and upwards.*

DISEASES.	ANNUAL AGGREGATES.		QUARTERS OF 1856.			
	1855.	1856.	1st.	2d.	3d.	4th.
Apoplexy	110	123	28	32	30	33
Casualties	102	158	33	35	59	31
Cholera infantum	566	722	2	32	676	12
Consumption of the lungs	1327	1501	394	380	370	357
Congestion of the brain	175	177	32	39	69	37
" " lungs	...	97	17	32	20	28
Convulsions	626	603	140	140	181	142
Croup	265	268	85	44	41	98
Debility	393	430	96	100	135	99
Diarrhœa	177	149	8	23	98	20
Disease of the brain	97	107	26	23	35	23
" " heart	170	179	66	34	39	40
Dropsy	136	213	37	37	64	75
" of the brain	254	242	59	52	91	40
Dysentery	266	301	10	20	232	39
Effusion on the brain	...	94	21	27	27	19
Erysipelas	...	100	29	25	19	27
Fever, scarlet	163	992	189	186	179	438
" typhoid	231	229	39	39	71	80
Hooping-cough	90	...	...	...	...	...
Inanition	104	114	50	8	36	20
Inflammation of the brain	288	329	77	72	111	69
" " bronchi	233	250	90	57	24	79
" " lungs	442	379	111	92	58	118
" " stomach and bowels	187	184	43	43	50	48
Marasmus	436	484	63	78	238	105
Measles	...	141	4	13	69	55
Old age	172	172	60	36	36	40
Palsy	106	104	31	28	27	18
Smallpox	281	390	238	99	28	25
Stillborn	588	612	163	165	139	145
Unknown	220	257	58	41	79	79

Table No. 11 gives, at a glance, the entire mortality for the year, amounting to 12,334; also for each month, with the sexes, the stillborn children, and the amount at each of the fifteen periods of life.

This analysis makes an excess of male deaths (which calculation includes stillborn children) of 374, or 3 per cent. This excess is only about half the usual rate in former statistics. In 1855 it was 6.05 per cent., and in 1854 it was 7.77 per cent.

The number of stillborn children exceeds those recorded in any former year. Here, also, the excess is among males, equal to 9.15 per cent. Last year the excess was unusually large, viz., 14.29 per cent. The month of December furnishes the largest number of stillborn children, 70; while the fewest, 35, were born in September.

Infant mortality contributes a large share of this table. That under one year amounted to 3,545, or 28.73 per cent. Up to the fifth year, the deaths reached 6,570; the percentage, 53.26—more than half of all who died during the year. Up to the twentieth year, they were 7,791, equal to 63.16 per cent. of the whole; a heavier rate of deaths, of minors compared with adults, than we have ever calculated. This circumstance is perhaps attributable to the large number of deaths from scarlet fever, measles, marasmus, and a few other diseases, without a corresponding mortality from these or any other diseases among the adult population.

It will be seen, also, in this table, that the heaviest mortality in any one month was in July—1,796; the next highest in August—1,311. Of these deaths—3,107—nineteen hundred and sixty-nine, or 63.37 per cent., were under five years of age.

Another circumstance is developed through this table, viz., that the rates of mortality decline from the first period of life up to twenty years, or the sixth period, when there is a rapid increase between twenty and thirty years, and from this decenniary, they gradually decline again down to the latest period of existence.

TABLE No. 11.—*The Deaths, with the Sexes, for each Month in the Year, and the Number at Sixteen Distinct Periods of Life—with the Stillborn Children for each Month, and their Sex.*

MONTHS.	Males.	Females.	STILLBORN.			Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	110 to 120.	Total.
			M.	F.	Total.																	
January	573	533	35	26	61	291	77	141	58	25	34	132	87	68	69	57	34	27	5	1	...	1106
February	423	438	28	25	53	234	76	127	46	17	29	86	61	55	49	28	31	18	4	...	...	861
March	447	396	27	22	49	229	66	112	33	15	24	93	99	47	37	38	18	23	9	...	...	843
April	548	504	31	29	60	270	83	137	52	17	27	121	91	73	54	53	54	13	7	...	...	1052
May	357	379	30	28	58	185	78	81	38	17	20	80	83	43	38	33	29	11	...	...	...	736
June	415	368	27	20	47	242	67	109	45	17	22	78	58	46	27	36	26	9	1	...	...	783
July	961	835	34	25	59	690	259	190	83	38	45	133	89	73	65	59	51	16	4	...	1	1796
August	696	615	24	21	45	456	251	123	52	19	32	103	78	56	59	35	24	13	10	...	...	1311
September . . .	450	414	20	15	35	234	137	108	32	17	19	93	75	50	29	21	36	11	1	1	...	864
October	468	452	18	19	37	216	91	118	62	10	22	92	99	54	56	43	29	22	5	1	...	920
November . . .	409	449	23	15	38	189	85	153	80	18	29	70	59	56	38	34	29	17	1	...	...	858
December . . .	612	592	37	33	70	309	126	230	87	18	22	96	91	67	55	46	34	16	7	...	...	1204
Totals	6359	5975	334	278	612	3545	1396	1629	668	228	325	1177	970	688	576	483	395	196	54	3	1	12334

In Table No. 12 we have furnished the number of births, as we find them recorded at the Health Office, for each year during five consecutive years.[1]

In corresponding columns, also, will be found the proportion of the sexes at birth, and the excess of males over the females. This excess amounts to between 4 and 5 per cent., except in 1853, when it was over 6 per cent.

We do not give this table of births as the most reliable for its correctness, believing it to be very defective, and for the last three years falling far below the actual number of births in our city.

At a glance, it will be seen that while the population and the deaths have gradually augmented since 1850, the births have not increased, but have rather diminished in numbers than otherwise. We present them, however, as we find them recorded, making a liberal allowance for all their defects, and remark that they are only as an approximation to the truth.

We have also presented in this table the number of deaths for each year, in juxtaposition with the births; likewise the number of deaths under five years for each year, and an exhibit of the percentage of infantile mortality to births, showing that a very large proportion of the children born in our city die before they attain their fifth year—the average proportion for the five years amounting to 44.77 per cent.

TABLE No. 12.

YEARS.	BIRTHS.			Excess of males per cent.	Deaths under 5 years.	Per ct. of deaths under 5 years to births.	Annual deaths.
	Males.	Females.	Total.				
1850 . . .	6,109	5,585	11,694	4.48	4,555	38.95	8,488
1851 . . .	5,840	5,353	11,193	4.36	4,439	39.65	8,871
1852 . . .	5,333	4,838	10,171	4.86	4,970	48.86	10,155
1853 . . .	6,059	5,330	11,389	6.40	4,708	41.33	9,711
1854 . . .	5,340	4,884	10,224	4.46	5,866	57.37	11,815

[1] The births for 1855 and 1856 have not been collected.

TABLE No. I.—MORTALITY FOR THE YEAR 1856.

Collated from the Returns made to the Board of Health. By WILSON JEWELL, M. D.

DISEASES.	FIRST QUARTER, COMMENCING DECEMBER 29, 1855.									SECOND QUARTER, COMMENCING MARCH 30, 1856.								
	JANUARY.		FEBRUARY.		MARCH.		Adults.	Minors.	Total.	APRIL.		MAY.		JUNE.		Adults.	Minors.	Total.
	M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F.			
Abscess	6	5	4	3	...	...	8	10	18	2	2	1	...	...	1	4	2	6
" lumbar	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1
" of psoas	...	...	...	...	1	...	1	...	1	1	1	...	...	...	...	2	...	2
Albuminuria	...	...	...	...	...	...	...	...	...	...	1	1	1	2	1	4	2	6
Amenorrhœa	...	1	...	...	...	...	1	...	1	...	1	...	...	...	...	1	...	1
Anæmia	2	1	...	...	...	...	...	3	3	...	...	...	1	...	2	2	1	3
Anthrax	2	...	...	...	...	...	2	...	2	1	...	...	...	...	...	1	...	1
Anasarca	...	1	1	...	...	...	1	1	2	...	...	...	1	...	...	...	1	1
Aneurism	1	...	1	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...
" of the aorta	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1
Angina	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1
" pectoris	...	...	...	1	...	...	1	...	1	2	1	...	...	...	...	2	1	3
Aphthæ	...	...	...	1	...	...	...	1	1	...	...	...	...	...	...	...	...	...
Apoplexy	10	5	2	3	4	4	28	...	28	7	8	3	4	8	2	31	1	32
Apnœa	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Asphyxia	1	...	...	...	...	...	1	...	1	2	2	1	3	1	1	2	8	10
Asthma	2	1	2	...	1	...	1	5	6	...	2	...	...	2	1	4	1	5
Cancer and scirrhus	2	7	1	7	1	5	23	...	23	3	4	2	4	5	2	18	2	20
" of the breast	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1
" " stomach and bowels	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	2	...	2
" " liver	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1
" " uterus	...	...	...	...	...	1	1	...	1	...	...	...	...	...	1	1	...	1
Cancrum oris	1	...	1	1	...	...	1	2	3	...	1	...	...	1	...	...	2	2
Caries	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	2	1	3

Caries of the spine	...	...	...	...	1	...	...	1	1	...	...	...	...	...	1	1	...	1
Carcinoma of stomach	...	...	...	...	1	...	1	...	1	...	...	1	...	...	...	1	...	1
Casualties	4	2	2	1	23	1	28	5	33	10	3	10	4	6	2	23	12	35
Burns and scalds	2	...	2	3	2	4	6	7	13	3	2	3	2	...	2	3	9	12
Drowned	...	2	...	...	4	...	6	...	6	4	...	8	3	11	2	16	12	28
Exposure	4	...	2	...	1	1	7	1	8	...	1	...	...	...	...	...	1	1
Fracture	2	...	...	...	...	...	2	...	2	...	...	...	...	2	...	2	...	2
Fracture of the skull	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	2
Poisoning	...	1	...	1	...	...	2	...	2	1	...	...	...	...	...	...	1	1
Strangulation	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1
Suicide	...	...	1	...	1	1	3	...	3	4	1	2	3	...	...	9	1	10
Suffocation	1	...	...	1	...	1	1	2	3	1	...	...	...	...	...	...	1	1
Catalepsy	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1
Cholera asphyxia	...	...	...	...	1	...	1	...	1	...	1	1	...	...	...	...	2	2
" infantum	1	1	...	...	...	...	...	2	2	1	...	...	1	15	15	...	32	32
" morbus	...	...	...	...	...	3	...	3	3	...	...	1	1	1	...	1	2	3
Chorea	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	1	2
Cirrhosis	1	...	...	...	1	...	2	...	2	1	...	...	...	1	1	3	...	3
Colic	...	1	2	...	1	...	2	2	4	...	...	...	...	...	...	...	...	...
Collapse of lungs	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1
Compression of the brain	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1
Congestion	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1
" of the stomach and bowels	1	...	...	...	...	...	...	1	1	...	...	...	1	...	...	...	1	1
" " brain	6	5	8	6	6	1	11	21	32	7	7	6	5	7	7	15	24	39
" " liver	...	...	...	...	...	...	...	...	...	...	4	...	1	1	...	3	3	6
" " lungs	3	4	3	2	2	3	4	13	17	13	2	5	5	6	1	11	21	32
Consumption of the bowels	...	1	1	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...
" " throat	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
" " lungs	83	77	49	69	50	66	324	70	394	82	84	48	65	46	55	302	78	380
Constipation	...	...	...	1	...	1	1	1	2	...	...	...	...	...	...	...	...	...
Convulsions	29	29	13	24	24	21	6	134	140	36	21	18	21	24	20	5	135	140
Croup	17	17	11	7	18	15	...	85	85	9	11	7	6	5	6	...	44	44
Cramp	...	1	1	...	...	2	...	4	4	1	...	1	...	...	...	...	2	2
Cyanosis	8	3	2	1	3	1	...	18	18	6	2	...	2	1	2	1	12	13
Debility	19	19	12	16	16	14	49	47	96	25	17	15	15	15	13	49	51	100

MORTALITY FOR THE YEAR 1856—*Continued.*

DISEASES.	FIRST QUARTER, COMMENCING DECEMBER 29, 1855.									SECOND QUARTER, COMMENCING MARCH 30, 1855.								
	JANUARY.		FEBRUARY.		MARCH.		Adults.	Minors.	Total.	APRIL.		MAY.		JUNE.		Adults.	Minors.	Total.
	M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F.			
Diabetes	2	...	1	...	1	...	3	1	4	1	...	...	...	...	...	1	...	1
Diarrhœa	2	2	2	...	1	1	6	2	8	5	1	2	4	8	3	6	17	23
Disease of the abdomen	...	...	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...
" brain	3	5	6	3	6	3	10	16	26	5	4	...	1	9	4	6	17	23
" chest	1	...	...	...	1	...	2	...	2	...	...	...	...	...	2	2	...	2
" heart	14	14	7	10	14	7	53	13	66	9	5	7	4	6	3	26	8	34
" hip	...	...	...	...	1	...	...	1	1	...	...	...	...	1	...	...	1	1
" kidneys	2	...	...	...	1	1	4	...	4	2	1	1	...	...	...	3	1	4
" neck	...	...	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...
" liver	2	...	1	...	...	...	3	...	3	3	2	...	...	1	2	7	1	8
" lungs	1	1	2	...	4	...	4	4	8	5	3	2	1	...	1	6	6	12
" prostate gland	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
" skin	...	1	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...
" spine	1	2	...	...	2	...	3	2	5	...	...	1	...	1	...	...	2	2
" stomach and bowels	...	1	2	2	...	1	3	3	6	...	1	...	1	2	...	2	2	4
" throat	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1
" uterus	...	1	...	1	...	1	3	...	3	...	...	...	1	...	...	1	...	1
Dropsy	6	7	5	7	7	5	25	12	37	10	5	4	7	7	4	26	11	37
" abdominal	1	1	...	...	...	...	2	...	2	...	...	...	1	...	...	1	...	1
" of the brain	8	6	14	11	8	12	3	56	59	9	9	10	9	6	9	2	50	52
" " chest	5	4	1	2	4	...	9	7	16	5	3	2	2	1	2	11	4	15
" " heart	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2	4	...	4
" " ovaries	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1
Dysentery	3	...	1	3	2	1	4	6	10	3	3	4	1	5	4	6	14	20
Effusion on the brain	3	5	3	3	5	2	2	19	21	9	5	1	3	5	4	6	21	27

Effusion on the chest	...	...	...	...	...	1	1	...	1	2	1	1	...	1	...	3	2	5
" heart	...	...	1	2	...	1	3	1	4	...	...	...	...	...	...	...	...	...
Enlargement of the heart	2	...	1	1	...	1	2	3	5	1	4	...	2	1	1	4	5	9
Epilepsy	...	3	3	2	...	1	7	2	9	...	1	...	...	...	1	...	2	2
Emphysema	...	...	...	1	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Erysipelas	7	2	5	4	7	4	12	17	29	7	7	3	3	3	2	17	8	25
Empyema	...	...	...	1	...	...	1	...	1	...	...	1	...	...	...	1	...	1
Exhaustion	...	...	...	...	2	2	4	...	4	1	2	1	2	...	1	7	...	7
Fatty degeneration of the heart	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1
Fistula	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Fever	...	...	...	...	...	1	...	1	1	...	...	1	1	...	...	1	1	2
" bilious	...	1	...	...	...	2	2	1	3	1	...	...	...	4	...	4	1	5
" congestive	...	...	...	1	...	...	1	...	1	...	1	...	...	1	...	1	1	2
" intermittent	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...	...	3	3
" gastric	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	2	2
" hectic or inflammatory	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1
" puerperal	...	12	...	8	...	6	25	1	26	...	8	...	6	...	6	20	...	20
" nervous	1	1	...	...	...	...	1	1	2	...	...	...	...	1	...	...	1	1
" remittent	...	1	1	1	1	...	2	2	4	2	...	2	1	...	2	1	6	7
" scarlet	34	33	36	30	28	28	8	181	189	36	45	19	20	34	32	1	185	186
" typhoid	11	9	7	9	3	...	23	16	39	2	5	7	7	6	12	26	13	39
" typhus	6	4	1	2	2	...	11	4	15	...	1	...	1	...	...	1	1	2
Fungus hæmatodes	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	2
Gangrene	3	...	...	...	1	2	5	1	6	1	...	1	...	...	2	2	2	4
Gout	1	...	...	...	...	...	1	...	1	1	...	...	...	...	...	1	...	1
" of the heart	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1
Hardening of liver	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Hemorrhage	1	2	...	...	4	...	2	5	7	3	2	2	3	...	5	11	4	15
" from the lungs	1	3	...	...	...	1	4	1	5	5	...	1	...	...	...	5	1	6
" " umbilicus	...	1	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...
" " uterus	...	1	...	1	...	2	4	...	4	...	...	...	1	...	...	1	...	1
Hernia	1	1	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...
Hematuria	...	...	...	1	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Hooping-cough	2	5	5	4	2	4	...	22	22	3	3	1	5	6	3	...	21	21
Hysteria	...	...	...	...	...	3	3	...	3	...	...	...	...	...	...	...	...	...

Mortality for the year 1856—*Continued.*

Diseases.	First quarter, commencing December 29, 1855.									Second quarter, commencing March 30, 1856.								
	January.		February.		March.		Adults.	Minors.	Total.	April.		May.		June.		Adults.	Minors.	Total.
	M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F.			
Icterus	1	...	...	...	...	...	...	1	1	3	3	...	1	2	1	6	4	10
Inanition	8	9	11	5	12	5	6	44	50	4	...	2	1	1	...	1	7	8
Inflammation	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	2	1	3
" of the abdomen	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1
" " bladder	...	...	...	...	...	2	2	...	2	...	1	1	...	1	3	1	4	
" " brain	14	13	13	16	12	9	9	68	77	15	12	10	14	14	7	11	61	72
" " bronchi	18	15	13	19	14	11	22	68	90	15	19	5	3	9	6	14	43	57
" " chest	1	...	...	1	1	...	2	1	3	1	...	...	1	...	...	...	2	2
" " heart	...	...	...	...	...	...	...	...	...	1	...	...	1	1	2	2	3	5
" " kidneys	1	1	...	...	...	...	1	1	2	...	1	...	...	1	...	2	...	2
" " larynx	2	...	3	...	4	2	4	7	11	2	2	...	1	2	1	2	6	8
" " leg	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	2	...	2
" " liver	2	...	5	...	2	1	5	5	10	...	...	4	2	2	2	8	2	10
" " lungs	17	19	22	16	17	20	45	66	111	29	22	13	14	6	8	37	55	92
" " ovaries	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
" " parotids	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...
" " peritoneum	3	3	2	7	...	4	14	5	19	2	8	1	...	2	2	14	1	15
" " pleura	...	2	...	...	...	...	1	1	2	1	2	1	...	...	1	4	1	5
" " spleen	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...
" " spine	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1
" " stomach and bowels	10	4	5	6	9	9	21	22	43	5	9	9	11	6	3	16	27	43
" " throat	...	1	...	1	3	...	2	3	5	...	1	...	1	1	2	1	4	5
" " tonsils	...	1	...	1	...	...	1	1	2	...	1	...	...	...	...	1	...	1
" " trachea	1	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...
" " uterus	...	...	...	...	...	1	1	...	1	...	1	...	3	...	2	6	...	6

Influenza	...	1	...	...	...	...	...	1	1	...	1	...	...	...	...	1	...	1
Insanity	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Intemperance	2	1	3	1	1	...	8	...	8	4	4	...	...	1	2	11	...	11
Intussusception	1	...	...	...	...	1	1	1	2	...	...	...	...	1	...	...	1	1
Lepra	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Malformation	1	1	...	1	3	...	...	6	6	1	1	1	...	2	2	...	7	7
Mania	...	1	...	...	1	1	3	...	3	...	...	...	...	1	1	2	...	2
Mania à potu	4	1	1	2	1	...	9	...	9	2	...	3	1	1	...	7	...	7
Marasmus	10	15	11	7	11	9	10	53	63	8	15	14	12	16	13	8	70	78
Measles	...	1	1	1	1	...	...	4	4	1	1	1	...	2	8	...	13	13
Mortification	1	4	...	...	1	...	4	2	6	...	...	...	...	...	...	...	...	...
Necrosis	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...
Obstruction of the bowels	2	1	...	...	2	...	3	2	5	...	...	1	...	...	...	...	1	1
Old age	6	14	9	9	5	17	...	60	60	4	11	3	8	3	7	36	...	36
Osteo sarcoma	...	...	...	1	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Palsy	5	4	3	6	5	8	29	2	31	6	6	4	4	2	6	27	1	28
Perforation of the bowels	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1
Purpura	2	...	...	...	1	1	2	2	4	...	...	1	...	3	1	...	5	5
Pyohæmia	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Rheumatism	1	1	2	1	...	1	4	2	6	5	1	...	...	2	...	4	4	8
Ramollissement	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1
Rupture of the bloodvessels	...	...	...	...	...	1	...	1	1	1	...	...	1	1	...	3	...	3
Scrofula	1	...	4	2	2	...	3	6	9	3	2	5	2	2	3	2	15	17
Smallpox	72	53	36	32	24	21	53	185	238	25	26	15	14	10	9	30	69	99
Softening of brain	3	1	1	1	...	1	6	1	7	2	2	2	...	2	1	4	5	9
" stomach	...	...	1	1	...	...	2	...	2	1	...	...	...	...	...	...	1	1
Spina bifida	...	...	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...
Sore mouth	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...
Softening spinal marrow	...	...	...	...	1	...	1	...	1	...	...	...	...	1	...	...	1	1
Stillborn	35	26	28	25	27	22	...	163	163	31	29	30	28	27	20	...	165	165
Syphilis	...	1	...	...	...	...	1	...	1	...	...	2	...	...	...	1	1	2
Syncope	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...
Tabes mesenterica	...	1	1	2	2	1	...	7	7	3	...	1	3	1	...	1	7	8
Sun-stroke	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1
Teething	...	2	...	...	1	1	...	4	4	...	3	...	...	2	1	...	6	6

MORTALITY FOR THE YEAR 1856—*Continued.*

DISEASES.	FIRST QUARTER, COMMENCING DECEMBER 29, 1855.									SECOND QUARTER, COMMENCING MARCH 30, 1856.								
	JANUARY.		FEBRUARY.		MARCH.		Adults.	Minors.	Total.	APRIL.		MAY.		JUNE.		Adults.	Minors.	Total.
	M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F.			
Tympanitis	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1
Tetanus	1	...	...	...	...	...	1	...	1	1	...	3	...	...	...	3	1	4
Tumor	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
" ovarian	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1
" of uterus	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	1	1	2
Ulceration	...	2	...	...	...	...	...	2	2	...	...	...	...	...	...	...	...	...
" of the larynx	...	...	...	...	1	...	...	1	1	...	...	1	...	...	...	...	1	1
" " stomach and bowels	...	1	...	...	...	...	1	...	1	...	...	1	...	1	...	1	1	2
" " mouth	...	1	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...
" " throat	...	2	2	2	...	...	...	6	6	...	1	...	...	...	...	1	...	1
" " rectum	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1
Unknown	10	11	12	12	8	5	26	32	58	13	5	7	3	8	5	23	18	41
Varicella	...	...	...	...	2	1	...	3	3	...	...	...	...	...	...	...	...	...
Varioloid	2	2	2	2	1	...	2	7	9	...	2	2	1	1	1	2	5	7
Wounds	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
Worms	...	...	...	...	1	...	...	1	1	...	...	...	...	1	...	...	1	1
Totals	573	533	423	438	447	396	1113	1697	2810	548	505	358	377	415	368	1064	1507	2571
From the almshouse	73		49		60		...	...	182	45		44		26		...	...	115
From the country	9		4		22		...	...	35	9		9		6		...	...	24
People of color	58		39		41		...	...	138	47		45		39		...	...	132

Under 1 year	291	234	229	...	...	754	270	185	242	...	...	697
From 1 to 2 years	77	76	66	...	...	219	83	78	67	...	...	228
" 2 to 5 "	141	127	112	...	...	380	137	81	109	...	...	327
" 5 to 10 "	58	46	33	...	...	137	52	38	45	...	...	135
" 10 to 15 "	25	17	15	...	...	57	17	17	17	...	...	51
" 15 to 20 "	34	29	24	...	...	87	27	20	22	...	...	69
" 20 to 30 "	132	86	93	...	...	311	121	80	78	...	...	279
" 30 to 40 "	87	61	99	...	...	247	91	83	58	...	...	232
" 40 to 50 "	68	55	47	...	...	170	73	43	46	...	...	162
" 50 to 60 "	69	49	37	...	...	155	54	38	27	...	...	119
" 60 to 70 "	57	28	38	...	...	123	53	33	36	...	...	122
" 70 to 80 "	34	31	18	...	...	83	54	29	26	...	...	109
" 80 to 90 "	27	18	23	...	...	68	13	11	9	...	...	33
" 90 to 100 "	5	4	9	...	...	18	7	...	1	...	...	8
" 100 to 110 "	1	...	...	...	...	1	...	...	...	...	...	...
" 110 to 120 "	...	...	...	...	...	...	...	...	...	...	...	...
Totals of monthly mortality . . .	1106	861	843	...	...	...	1052	736	783	...	...	...
Total males for the quarter . . .	...	...	...	...	...	1443	...	...	...	...	...	1321
Total females for the quarter . .	...	...	...	...	...	1367	...	...	...	...	...	1250
Total adults for the quarter . . .	...	...	...	1113	...	...	...	...	...	1064	...	...
Total minors for the quarter . . .	...	...	...	...	1697	...	...	...	...	...	1507	...
Total for the quarter	...	...	...	...	...	2810	...	...	...	...	...	2571

MORTALITY FOR THE YEAR 1856—*Continued.*

DISEASES.	THIRD QUARTER, COMMENCING JUNE 28.									FOURTH QUARTER, COMMENCING SEPT. 27.									Total 3d quarter.	Total 2d quarter.	Total 1st quarter.	Total for year.
	JULY.		AUGUST.		SEPT.		Adults.	Minors.	Total.	OCT.		NOV.		DEC.		Adults.	Minors.	Total 4th quarter.				
	M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F.							
Abscess	1	1	1	...	2	...	2	3	5	1	2	3	3	1	1	8	3	11	5	6	18	40
" lumbar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
" of brain	...	...	...	1	1	...	...	2	2	...	...	...	...	...	...	...	...	...	2	...	...	2
" liver	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	...	...	1
" lungs	...	1	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	1
" psoas	1	...	...	...	...	...	1	...	1	1	...	...	...	...	...	1	...	1	1	2	...	4
Albuminuria	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	3	...	3	...	6	...	9
Amenorrhœa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Anæmia	2	2	1	1	...	...	...	6	6	...	...	1	1	...	...	1	1	2	6	3	3	14
Anasarca	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2	2	...	1	2	5
Anthrax	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	3
Aneurism	...	...	...	...	...	1	1	...	1	...	...	1	...	2	...	3	...	3	1	...	2	6
" of the aorta	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...	1	1	...	2
Angina	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
" pectoris	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	...	3	1	5
Anuria	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	...	...	1
Aphthæ	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Apnœa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Apoplexy	4	8	3	7	4	4	30	...	30	6	5	1	5	12	4	33	...	33	30	32	28	123
Asphyxia	2	1	3	...	...	...	...	6	6	1	3	1	2	1	3	2	9	11	6	10	1	28
Asthma	1	1	2	...	1	2	5	2	7	...	...	2	...	...	1	3	...	3	7	5	6	21
Cachexia	1	2	...	1	...	...	1	3	4	...	...	...	...	...	...	...	...	...	4	...	...	4
Cancer and scirrhus	3	10	1	4	1	6	25	...	25	...	6	1	11	1	4	21	2	23	25	20	23	91
" of the breast	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	...	1	2

Cancer of the liver	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	1	2
" " rectum	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	...	...	1
" " stomach and bowels	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	2	...	2	...	...	2	4
" " uterus	...	...	...	...	...	1	1	...	1	...	...	...	...	...	2	2	...	2	1	1	1	5
Cancrum oris	2	...	...	...	...	...	...	2	2	...	1	...	...	...	...	...	1	1	2	2	3	8
Carbuncle, malignant	1	...	...	...	...	...	1	...	1	...	...	...	1	...	...	1	...	1	1	...	...	2
Caries	...	1	...	...	...	...	...	1	1	1	1	...	...	...	...	2	...	2	1	3	...	6
" of the spine	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Carcinoma of stomach	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Casualties	33	7	8	1	8	2	30	29	59	10	2	8	3	6	2	23	8	31	59	35	33	158
Burns and scalds	2	3	2	4	...	...	3	8	11	3	5	1	8	1	3	7	14	21	11	12	13	57
Concussion of brain	1	...	...	...	...	...	...	1	1	...	...	1	...	1	...	2	...	2	1	...	...	3
Drowned	24	7	13	2	12	1	30	29	59	6	1	2	1	2	...	8	4	12	59	28	6	105
Exposure	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	8	9
Fracture	2	...	...	...	2	1	5	...	5	...	...	...	...	...	...	...	...	...	5	2	2	9
Fracture of the skull	...	...	...	...	1	...	1	...	1	...	...	1	...	...	...	1	...	1	1	2	...	4
Poisoning	1	1	...	...	...	...	2	...	2	1	...	...	...	1	...	2	...	2	2	1	2	7
Strangulation	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	1	2
Suffocation	...	...	1	...	...	...	...	1	1	1	...	...	2	2	...	2	3	5	1	1	3	10
Suicide	6	1	2	1	1	...	11	...	11	3	...	7	...	1	2	12	1	13	11	10	3	37
Violence	...	...	...	...	...	...	...	...	...	2	...	1	...	1	...	2	2	4	...	...	...	4
Catalepsy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Childbed	...	1	...	...	...	1	2	...	2	...	...	...	...	...	...	...	...	...	2	...	...	2
Chlorosis	...	...	...	2	...	...	...	2	2	...	...	...	...	...	...	...	...	...	2	...	...	2
Cholera	3	5	3	...	1	...	6	6	12	...	...	...	...	...	1	1	...	1	12	2	1	16
" asphyxia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	3
" infantum	194	185	125	114	33	25	...	676	676	5	3	3	...	1	...	...	12	12	676	32	2	722
" morbus	4	13	3	5	1	...	18	8	26	2	1	...	...	...	...	2	1	3	26	3	3	35
Chorea	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2
Cirrhosis	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	...	3	2	6
Colic	2	...	1	2	1	1	3	4	7	1	2	...	1	2	...	4	2	6	7	...	4	17
Collapse of lungs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Coma	...	...	...	...	...	1	1	...	1	...	1	...	...	...	...	1	...	1	1	...	...	2

MORTALITY FOR THE YEAR 1856—*Continued.*

DISEASES.	THIRD QUARTER, COMMENCING JUNE 28.									FOURTH QUARTER, COMMENCING SEPT. 27.												
	JULY.		AUGUST.		SEPT.		Adults.	Minors.	Total.	OCT.		NOV.		DEC.		Adults.	Minors	Total 4th quarter.	Total 3d quarter.	Total 2d quarter.	Total 1st quarter.	Total for year.
	M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F.							
Compression of the brain	1	1	...	...	3	...	3	2	5	1	...	...	...	...	1	2	...	2	5	1	...	8
Congestion	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	1	1	2	...	1	...	3
" of the brain	18	15	10	12	7	7	17	52	69	7	4	6	3	8	9	8	29	37	69	39	32	177
" " stomach and bowels	2	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	2	1	1	4
" " liver	...	1	...	1	1	...	1	2	3	1	...	...	...	...	...	1	...	1	3	6	...	10
" " lungs	2	8	4	2	3	1	6	14	20	2	1	3	6	7	9	10	18	28	20	32	17	97
Constipation	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	...	2	3
Consumption of the bowels	...	...	...	1	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	2	3
" " throat	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
" laryngeal	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
" of the lungs	63	89	49	63	48	58	310	60	370	72	79	38	51	64	53	288	69	357	370	380	394	1501
Convulsions	59	40	22	23	22	15	10	171	181	22	24	19	19	29	29	10	132	142	181	140	140	603
" puerperal	...	...	...	1	...	...	1	...	1	...	1	...	...	...	...	1	...	1	1	...	...	2
Cramp	1	...	...	1	...	...	2	...	2	2	...	...	...	1	...	...	3	3	2	2	4	11
" of stomach	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	...	...	1
Croup	5	6	5	4	13	8	...	41	41	12	11	12	16	26	21	1	97	98	41	44	85	268
Cyanosis	3	1	2	1	1	1	...	9	9	5	2	2	1	3	1	...	14	14	9	13	18	54
Debility	28	31	18	25	19	14	50	85	135	28	18	14	15	12	12	44	55	99	135	100	96	430
Diabetes	2	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	2	1	4	7
Diarrhœa	23	21	13	22	8	11	26	72	98	1	6	1	4	4	4	12	8	20	98	23	8	149
Disease of the abdomen	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
" brain	7	10	6	5	3	4	4	31	35	3	2	5	3	6	4	7	16	23	35	23	26	107
" bladder	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	...	...	1
" chest	...	...	...	...	1	...	1	...	1	1	...	...	...	...	...	...	1	1	1	2	2	6

Disease of the heart	9	11	4	7	3	5	25	14	39	7	3	5	7	8	10	29	11	40	39	34	66	179
" kidneys	...	...	2	...	...	...	2	...	2	1	...	1	...	4	...	6	...	6	2	4	4	16
" liver	...	...	5	4	...	3	9	3	12	...	1	...	1	...	2	3	1	4	12	8	3	27
" hip	...	...	...	1	1	...	1	1	2	...	...	...	...	...	...	...	...	...	2	1	1	4
" lungs	1	2	2	2	1	...	6	2	8	...	2	2	...	5	...	6	3	9	8	12	8	37
" mouth	1	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	1
" neck	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
" ovaries	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	...	...	1
" prostate gland	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
" skin	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
" spine	...	...	1	...	...	...	...	1	1	...	...	...	...	2	...	1	1	2	1	2	5	10
" stomach and bowels	2	1	2	...	1	2	1	7	8	2	1	...	1	2	3	3	6	9	8	4	6	27
" throat	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	1	1	...	2
" uterus	...	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	1	3	5
Dropsy	10	12	10	13	7	12	41	23	64	14	14	11	7	18	11	38	37	75	64	37	37	213
" abdominal	...	...	...	2	1	1	3	1	4	...	...	...	...	...	1	...	1	1	4	1	2	8
" of the brain	26	17	18	10	15	5	2	89	91	12	4	4	6	5	9	1	39	40	91	52	59	242
" " chest	1	4	3	1	1	...	5	5	10	2	4	6	4	4	...	6	14	20	10	15	16	61
" " heart	1	1	...	1	...	...	3	...	3	1	1	...	1	1	1	3	2	5	3	4	...	12
" " ovaries	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Dysentery	61	30	64	38	24	15	71	161	232	12	9	1	5	7	5	25	14	39	232	20	10	301
Effusion on the brain	9	2	7	3	4	2	4	23	27	4	4	2	1	6	2	4	15	19	27	27	21	94
" chest	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1	...	5	1	7
" heart	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	4
" lungs	...	...	...	...	1	1	...	2	2	...	1	...	...	1	...	2	...	2	2	...	...	4
Emphysema of the lungs	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	1	2
Enlargement of the heart	3	1	...	...	...	...	3	1	4	...	...	1	2	4	...	5	2	7	4	9	5	25
" " liver	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	...	...	1
" " spleen	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...	1	...	...	1
Epilepsy	1	2	3	2	1	1	7	3	10	2	...	...	1	...	...	2	1	3	10	2	9	24
Empyema	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Erysipelas	10	2	2	1	3	1	8	11	19	1	2	3	2	11	8	15	12	27	19	25	29	100
Excessive heat	1	...	1	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	2	...	...	2

MORTALITY FOR THE YEAR 1856—*Continued.*

DISEASES.	THIRD QUARTER, COMMENCING JUNE 28.									FOURTH QUARTER, COMMENCING SEPT. 27.												
	JULY.		AUGUST.		SEPT.		Adults.	Minors.	Total.	OCT.		NOV.		DEC.		Adults.	Minors.	Total 4th quarter.	Total 3d quarter.	Total 2d quarter.	Total 1st quarter.	Total for year.
	M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F.							
Exhaustion	1	...	...	2	1	2	4	2	6	1	1	...	...	...	...	1	1	2	6	7	4	19
Fatty degeneration of the heart	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Fistula	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Fever	2	...	...	...	1	...	1	2	3	...	1	...	1	1	1	3	1	4	3	2	1	10
" bilious	1	...	2	4	2	...	8	1	9	...	1	2	1	2	1	6	1	7	9	5	3	24
" congestive	...	...	1	...	...	...	1	...	1	...	...	...	1	...	1	...	2	2	1	2	1	6
" gastric	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2
" hectic	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	1	1	...	2
" intermittent	...	2	...	...	1	...	1	2	3	1	5	...	1	...	1	4	4	8	3	3	...	14
" nervous	...	1	...	...	...	...	...	1	1	1	1	...	...	...	1	1	2	3	1	1	2	7
" puerperal	...	10	...	2	...	3	14	1	15	...	1	...	5	...	2	8	...	8	15	20	26	69
" remittent	...	...	...	1	2	2	...	5	5	2	1	...	1	...	2	3	3	6	5	7	4	22
" scarlet	43	32	27	14	33	30	2	177	179	41	51	59	82	100	105	5	433	438	179	186	189	992
" typhoid	12	8	16	8	10	17	45	26	71	12	17	11	16	14	10	55	25	80	71	39	39	229
" typhus	4	1	6	3	5	...	12	7	19	3	...	2	5	3	...	11	2	13	19	2	15	49
" " icterodes	2	1	1	...	...	..	1	3	4	1	...	...	...	...	...	1	...	1	4	...	...	5
Fungus hæmatodes	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	2	...	3
Gangrene	1	...	...	...	1	1	1	2	3	...	...	2	1	1	...	3	1	4	3	4	6	17
Gout	...	1	2	...	...	...	1	2	3	...	...	1	...	1	...	2	...	2	3	1	1	7
" of the heart	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Hardening of liver	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Hemorrhage	3	1	3	2	1	6	13	3	16	...	...	3	...	...	2	3	2	5	16	15	7	43
" from the lungs	1	1	1	...	...	1	4	...	4	2	5	2	...	2	2	11	2	13	4	6	5	28

Hemorrhage from the stomach and bowels	1	...	1	...	1	...	3	...	3	...	2	1	...	2	1	6	...	6	3	...	...	9
" " umbilicus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	1	2
" " uterus	...	1	...	...	...	...	1	...	1	...	1	...	...	...	...	1	...	1	1	1	4	7
Hematuria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Hernia	...	1	1	...	...	3	5	...	5	2	1	...	2	...	...	4	1	5	5	...	2	12
Hooping-cough	5	4	4	2	1	4	...	20	20	1	4	...	2	2	5	...	14	14	20	21	22	77
Hysteria	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3
Hydrophobia	...	...	1	...	...	...	1	...	1	...	...	1	...	...	...	...	1	1	1	...	...	2
Icterus	2	1	1	1	1	1	1	6	7	1	1	...	1	...	...	2	1	3	7	10	1	21
Ileus	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	...	...	...	1
Inanition	7	14	3	7	4	1	4	32	36	2	1	6	3	3	5	4	16	20	36	8	50	114
Inflammation	1	1	1	1	1	...	2	3	5	1	1	...	1	...	1	...	4	4	5	3	...	12
" of the abdomen	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
" " bladder	...	...	...	1	...	...	1	...	1	1	...	...	...	...	...	1	...	1	1	4	2	8
" " brain	28	20	25	21	9	8	11	100	111	11	12	13	9	10	14	6	63	69	111	72	77	329
" " bronchi	6	7	3	3	2	3	8	16	24	9	9	15	8	16	22	13	66	79	24	57	90	250
" " chest	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	1	2	...	2	3	7
" " glands	1	...	1	...	...	...	...	2	2	...	...	...	...	...	...	...	...	...	2	...	...	2
" " heart	1	...	...	...	...	...	1	...	1	...	...	...	1	2	...	2	1	3	1	5	...	9
" " kidneys	2	...	...	1	...	...	2	1	3	...	...	...	...	...	...	...	...	...	3	2	2	7
" " larynx	1	1	...	...	1	...	2	1	3	3	1	...	2	2	4	4	8	12	3	8	11	34
" " leg	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2
" " liver	4	2	2	...	2	2	10	2	12	...	1	1	1	3	1	4	3	7	12	10	10	39
" " lungs	11	12	11	10	7	7	11	47	58	10	9	16	15	32	36	26	92	118	58	92	111	379
" " ovaries	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
" " parotid glands	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
" " peritoneum	2	1	2	4	1	3	8	5	13	2	2	4	1	3	9	13	8	21	13	15	19	68
" " pleura	1	...	...	...	...	1	2	...	2	2	...	1	1	2	1	7	...	7	2	5	2	16
" " spine	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
" " spleen	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
" " stomach and bowels	13	13	8	5	5	6	20	30	50	1	7	10	6	11	13	25	23	48	50	43	43	184
" " throat	2	...	1	1	1	...	2	3	5	...	...	...	...	...	...	...	...	...	5	5	5	15
" " tonsils	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	1	2	3	...	1	2	6

MORTALITY FOR THE YEAR 1856—*Continued.*

DISEASES.	THIRD QUARTER, COMMENCING JUNE 28.									FOURTH QUARTER, COMMENCING SEPT. 27.												
	JULY.		AUGUST.		SEPT.		Adults.	Minors.	Total.	OCT.		NOV.		DEC.		Adults.	Minors.	Total 4th quarter.	Total 3d quarter.	Total 2d quarter.	Total 1st quarter.	Total for year.
	M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F.							
Inflammation of the trachea	...	...	1	...	...	2	...	3	3	1	...	1	1	1	1	1	4	5	3	...	1	9
" " uterus	...	...	...	4	...	...	3	1	4	...	...	...	1	...	3	4	...	4	4	6	1	15
Influenza	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
Insanity	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Intemperance	1	2	1	1	1	2	8	...	8	...	1	1	3	...	...	5	...	5	8	11	8	32
Intussusception	...	1	1	...	...	...	2	...	2	...	...	1	...	...	...	1	...	1	2	1	2	6
Lepra	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Lupus exedens	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	1	...	...	1	2
Malformation	3	1	1	...	...	...	...	5	5	1	...	...	3	1	1	...	6	6	5	7	6	24
Mania	1	1	...	...	...	...	2	...	2	...	...	...	2	1	1	4	...	4	2	2	3	11
Mania à potu	6	...	1	1	2	...	10	...	10	4	1	5	2	3	2	17	...	17	10	7	9	43
Marasmus	40	41	46	42	36	33	9	229	238	18	26	16	14	17	14	10	95	105	238	78	63	484
Measles	21	17	11	17	1	2	...	69	69	2	3	6	8	14	22	1	54	55	69	13	4	141
Mortification	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	...	6	7
" of leg	1	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	1
Necrosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Neuralgia	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	...	1
Obstruction of the bowels	1	1	...	...	1	...	1	2	3	...	...	...	...	...	...	...	...	...	3	1	5	9
Old age	2	14	5	5	2	8	36	...	36	7	9	2	8	4	10	40	...	40	36	36	60	172
Ossification of arteries	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	...	...	1
" heart	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	...	...	1
Osteo-sarcoma	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Palsy	6	9	2	3	3	4	26	1	27	3	2	2	5	2	4	16	2	18	27	28	31	104

Palsy of lungs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	...	...	1
Perforation of the intestines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	1	1	3
Pyohæmia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Purpura	1	...	3	1	1	2	1	7	8	...	...	1	...	1	1	...	3	3	8	5	4	20
Rachitis	...	...	...	...	...	...	...	...	...	2	...	...	...	1	...	...	3	3	...	...	...	3
Rheumatism	...	...	...	1	1	1	3	...	3	1	...	1	1	...	3	5	1	6	3	8	6	23
Ramollissement	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Rupture of the bloodvessels	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	4
" heart	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	...	...	...	1
" liver	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	...	1
" uterus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...	...	...	1
Scrofula	2	5	6	6	1	2	2	20	22	2	3	2	2	3	1	4	9	13	22	17	9	61
Scurvy	...	...	1	...	1	...	2	...	2	...	...	...	...	...	...	...	...	...	2	...	...	2
Smallpox	4	5	9	2	3	5	5	23	28	4	3	3	5	4	6	5	20	25	28	99	238	390
Softening of the brain	4	3	1	3	1	...	12	...	12	2	1	2	1	1	5	7	5	12	12	9	7	40
" spinal marrow	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
" stomach	1	1	...	1	...	1	...	4	4	...	...	...	...	...	...	...	...	...	4	1	2	7
Sore mouth	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...	...	...	...	1	...	1	2
Sore throat	1	...	1	1	...	1	...	4	4	1	...	...	1	1	...	...	3	3	4	...	...	7
Spina bifida	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	...	1	2
Starvation	...	...	...	1	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	...	1
Stillborn	34	25	24	21	20	15	...	139	139	18	19	23	15	37	33	...	145	145	139	165	163	612
Stomatitis	...	...	...	1	...	...	...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	1
Stricture of the bowels	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1	...	...	...	1
Suppression of urine	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	...	1
Sun-stroke	1	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	1
Syphilis	...	...	...	1	...	...	...	1	1	1	...	...	...	...	...	...	1	1	1	2	1	5
Syncope	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Tabes mesenterica	...	1	3	4	2	1	...	11	11	2	2	3	1	2	...	2	8	10	11	8	7	36
Teething	4	2	5	2	1	1	...	15	15	1	1	...	...	1	1	...	4	4	15	6	4	29
Tympanitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Tetanus	1	...	3	...	...	...	4	...	4	2	...	...	...	1	1	2	2	4	4	4	1	13

MORTALITY FOR THE YEAR 1856—*Continued.*

DISEASES.	THIRD QUARTER, COMMENCING JUNE 28.									FOURTH QUARTER, COMMENCING SEPT. 27.												
	JULY.		AUGUST.		SEPT.		Adults.	Minors.	Total.	OCT.		NOV.		DEC.		Adults.	Minors.	Total 4th quarter.	Total 3d quarter.	Total 2d quarter.	Total 1st quarter.	Total for year.
	M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F							
Trismus	...	1	1	...	...	...	...	2	2	...	...	...	...	...	...	...	...	...	2	...	...	2
Tumor	1	...	...	...	...	...	...	1	1	...	...	...	4	...	...	4	...	4	1	...	1	6
" ovarian	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
" of uterus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2
Ulceration	...	...	1	1	1	3	4	2	6	...	...	...	...	...	...	...	...	...	6	2	2	10
" of leg	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	...	1
" larynx	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2
" stomach and bowels	2	1	2	...	1	1	3	4	7	...	...	...	1	2	2	5	...	5	7	2	1	15
" throat	1	1	...	...	...	...	...	2	2	2	...	...	...	1	2	...	5	5	2	1	6	14
" mouth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
" rectum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Unknown	21	8	16	11	13	10	33	46	79	16	7	12	8	20	16	48	31	79	79	41	58	257
Varicella	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3	6
Varioloid	2	...	1	1	...	1	2	3	5	...	1	...	...	2	1	...	4	4	5	7	9	25
Wounds	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
Worms	...	...	1	...	...	1	...	2	2	1	...	...	...	...	...	1	...	1	2	1	1	5
Totals	962	834	696	615	449	415	1188	2783	3971	468	452	409	449	612	592	1118	1864	2982	3971	2571	2810	12334
From the almshouse	80		60		45		...	...	185	36		57		29		...	...	122	185	...	...	...
From the country	15		17		15		...	...	47	10		4		12		...	...	26	47	...	...	...
People of color	87		62		38		...	...	187	41		65		42		...	...	148	187	...	...	...

Under 1 year	690	456	234	...	...	1380	216	189	309	...	...	714	...	...	...	
From 1 to 2 years	259	251	137	...	...	647	91	85	126	...	...	302	...	...	...	
" 2 to 5 "	190	123	108	...	...	421	118	153	230	...	...	501	...	...	...	
" 5 to 10 "	83	52	32	...	...	167	62	80	87	...	...	229	...	...	...	
" 10 to 15 "	38	19	17	...	...	74	10	18	18	...	...	46	...	...	...	
" 15 to 20 "	45	32	19	...	...	96	22	29	22	...	...	73	...	...	...	
" 20 to 30 "	133	103	93	...	...	329	92	70	96	...	...	258	...	...	...	
" 30 to 40 "	89	78	75	...	...	242	99	59	91	...	...	249	...	...	...	
" 40 to 50 "	73	56	50	...	...	179	54	56	67	...	...	177	...	...	...	
" 50 to 60 "	65	59	29	...	...	153	56	38	55	...	...	149	...	...	...	
" 60 to 70 "	59	35	21	...	...	115	43	34	46	...	...	123	...	...	...	
" 70 to 80 "	51	24	36	...	...	111	29	29	34	...	...	92	...	...	...	
" 80 to 90 "	16	13	11	...	...	40	22	17	16	...	...	55	...	...	...	
" 90 to 100 "	4	10	1	...	...	15	5	1	7	...	...	13	...	...	...	
" 100 to 110 "	...	...	1	...	...	1	1	...	...	...	...	1	...	...	...	
" 110 to 120 "	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	
Totals of monthly mortality	1796	1311	864	...	...	...	920	858	1204	...	...	...	...	...	...	...
Total males for the quarter	...	...	...	...	...	2107	...	...	...	...	...	1489	...	...	...	
Total females for the quarter	...	...	...	...	...	1864	...	...	...	...	...	1493	...	...	...	
Total adults for the quarter	...	...	...	1188	...	...	...	...	...	1118	...	...	...	...	...	...
Total minors for the quarter	...	...	...	...	2783	...	...	...	...	...	1864	...	...	...	...	...
Grand total for the quarter	...	...	...	...	...	3971	...	...	...	...	...	2982	...	...	...	

Total for the year 12,334

Stated Meeting, April 1, 1857.

Dr. WOOD, President, in the chair.

On ballot the following gentlemen were elected Fellows of the College: Dr. WALTER F. ATLEE, Dr. ROBERT E. ROGERS, and Dr. T. G. RICHARDSON.

The College then elected, by ballot, the following delegates to represent it in the American Medical Association :—

Dr. G. B. WOOD,
" F. BACHE,
" G. W. NORRIS,
" T. DILLARD,
" E. HARTSHORNE,
" C. D. MEIGS,
Dr. S. L. HOLLINGSWORTH,
" W. W. GERHARD,
" F. WEST,
" D. GILBERT,
" J. HOPKINSON,
" B. S. JANNEY.

The following gentlemen were also elected to represent the College in the "Quarantine Convention :"—

Dr. R. LA ROCHE,
" E. HARTSHORNE,
" J. BELL,
" D. F. CONDIE,
" G. EMERSON.

The Secretary presented a communication from Dr. N. TIEDEMANN accompanying a number of copies of an "Essay upon the pathology of dysentery and its treatment by nitrate of potassa." The essay is dedicated to the College.

The Secretary was instructed to make a suitable acknowledgment to Dr. Tiedemann for his courtesy.

Stated Meeting May 6, 1857.

Dr. Wood, President, in the chair.

Present, twenty-four Fellows.

The gentlemen elected Fellows at the last meeting were present, and were introduced to the College.

The Secretary read a letter from Dr. E. Gintrac, of Bordeaux, acknowledging the honor of his election as an Associate of the College.

A letter from Dr. C. D. Meigs was also read, regretting his inability to attend the meeting of the American Medical Association as a Delegate from the College.

Dr. Bell rose to make a personal explanation: A daily newspaper contained an advertisement of artificial Vichy water, with a statement that it was prepared according to the analysis of Dr. Bell. Dr. B. had caused a denial of this allegation to be published. He made, he said, no pretension to skill in chemical analysis, and the only formula that he had published, or furnished to any apothecary, was at the time, and in writing, stated to be that of Soubeiran.

The Librarian announced that he had received from their author, Joseph Toynbee, F. R. S., the following publications:—

On the Use of an Artificial Membrana Tympani in cases of Deafness depending upon the Perforation or Destruction of the Natural Organ, 5th ed., Lond., 1856.

A Descriptive Catalogue of Preparations Illustrative of the Diseases of the Ear, in the Museum of Joseph Toynbee, F. R. S., Lond., 1857.

Dr. J. C. Morris read the following paper

ON FATTY DEGENERATION OF THE PLACENTA, AS A CAUSE OF ABORTION.

The term fatty degeneration belongs to modern pathology: and the conditions under which it takes place are as yet too little

known for the establishment of any general law respecting it. It may be defined to be the accumulation of fat, either in granules or cells, in greater proportions than those of health. It may take place to such an extent that the original structure of the organ in which it is deposited, becomes wholly changed; as a matter of course, deranged function must follow diseased structure; and if the organ affected be a vital one, death must sooner or later ensue. Fatty degeneration occurs most frequently in connection with causes which debilitate and impoverish the blood, as in phthisis and intemperance; it moreover occurs generally after the meridian of life; thus showing its connection with retrogressive metamorphosis, rather than with progressive development. But not only do such organs as the muscles, the heart, the liver, and kidneys undergo this change; but the placenta seems liable to it also. Two views have been taken of this fact. Dr. Rob't Barnes, of London, in a communication to the *Medico-Chirurg. Transactions*, 1851, vol. 36, p. 351, first called the attention of the profession to this change, and stated his belief that the death and subsequent detachment of the fœtus were due to it; while Mr. Druitt (*Lancet*, 1853) thinks that the placenta, being a temporary structure, discharging for a certain time its function of maintaining the integrity of the blood of the fœtus, is endowed with the power of vitality only for that time, and that as the period approaches when the fœtus is to be extruded, a degeneration either fatty or earthy in character always takes place; the period of labor being that when the placenta is no longer able to sustain the proper interchange of fluid between the mother and child. Plausible as this view may seem, it yet wants the only support to be relied on, viz., the demonstration that such changes do actually take place in a majority of natural labors. Dr. Tyler Smith, in his lectures on Obstetrics, published in the *Lancet* for 1856, gives fatty degeneration of the placenta as one of the causes of abortion; but in the present state of our knowledge, it must remain uncertain whether the fatty degeneration causes the death and expulsion of the fœtus, or the death of the latter is followed by the degeneration and expulsion. For my own part, two cases which have fallen under my notice rather incline me to the former view. The cases are as follows:—

I. Mrs. S., aged 21, of a tubercular aspect, and family tendency,

but without any pulmonary disease, was married in February, 1856, and menstruated soon after; she then became pregnant, and went through the early months as usual; in May, she had a fall which hurt her back, but gave rise to no great inconvenience. In September, she consulted me on account of a diminution of the abdominal tumor which she had first noticed in August. I thought I could distinguish the placental souffle indistinctly. I next saw her October 20th, when she was delivered of a fœtus dead at the third month. The placenta came away immediately; it was small, and presented in three-fourths of its extent a fatty mass, resembling the subcutaneous cellular tissue loaded with fat, the remaining portion was nearly healthy. Mrs. S. recovered promptly; but has at this time slight dulness under the left clavicle and harsh respiration. One of her sisters died of consumption under my care, and another labors under chronic bronchitis.

II. Mrs. J. H. K., aged 33, was threatened with an abortion, and sent for me April 16, 1857. After an ineffectual endeavor to prevent it, she was delivered of a three months' fœtus; the after-birth remained a short time, when I withdrew it. The placenta was small, rather soft, and decidedly fatty, though not of the same consistence as the preceding. Only a very small portion at one edge presented the healthy appearance of placental structure; the rest was soft, pale, and fatty. Mrs. K. was disposed to attribute her miscarriage to anxiety and fatigue in nursing a child that died three weeks previously. She has a sister who has consumption; but has always enjoyed good health herself, except a pain in her back and left side; there is no uterine displacement, but a constant tenderness in the left iliac fossa gives rise to a suspicion of subacute ovarian disease.

Now in both of these cases, there was no direct external exciting cause of labor, but in both such cause had existed some time previously. May we not reasonably suppose that diseased nutrition of the placenta at that time commenced in each of them, and continued until it ceased to be able to convey the blood received from the uterus, and therefore expulsion took place? No cause of death of the fœtus, other than this was observed in either case.

THE "NATIONAL HOTEL" EPIDEMIC.

The President inquired if any of the Fellows were acquainted with facts such as would tend to throw light upon the nature and the cause of the epidemic disease which lately had affected the inmates of the National Hotel, in Washington, D. C. He had, himself, had under treatment a gentleman who contracted a dysentery there, and subsequently was attacked with typhoid fever, which terminated in recovery.

Dr. EMERSON remarked that the exhalations from putrefying matters generally occasioned diseases of a febrile character; but, in the disease at the National Hotel, there was little or no fever that he had heard of, and he was, therefore, disposed to regard the symptoms as the effects of a direct irritant.

Dr. NEILL, in order to show the great diversity of opinion as to the causes of the disease, mentioned that a physician of high standing and large experience entertained the notion that some preparation of copper was the poisonous agent.

Dr. CASPAR MORRIS had had under his care three persons suffering more or less from the disease under discussion. In the first case the symptoms were decidedly choleraic; the patient was utterly unable to restrain the discharges from his bowels; these were profuse and colorless; his voice was feeble and whispering, and his aspect was suggestive of the stage of approaching collapse in cholera. There was one marked peculiarity, an icterode hue of the conjunctivæ and of the skin. In order to control the diarrhœa, laudanum enemata were administered, and pills of opium, camphor, and blue mass were prescribed. Under these medicines, the most absolute repose, and an entirely unirritating diet, recovery took place; but during three weeks afterwards, the slightest deviation from the regimen prescribed, reproduced the symptoms, although in a mitigated form. The second case was that of a gentleman of this city, in public life; he presented the same condition, and his symptoms tended constantly to return unless he restricted himself to a diet of bread and milk. The exhaustion of nerve force was great and long continued, and

the pallor extreme, resembling that of anæmia. The third case was a slight one comparatively. The patient had remained at the hotel only for a day and a night, and suffered from diarrhœa in the cars on his return, and during several days after. Dr. M. was acquainted with another case of a person who experienced an extremely violent attack of the disease in December, 1856, and who is still suffering very great debility in consequence of it. The subject, involving as it does the suspicion of intentional destruction of life upon a scale of fearful magnitude, appeared to him a very grave one. It is, Dr. M. remarked, interesting, in this aspect of the case, that simultaneously with the excitement in regard to the disease at Washington, we should be receiving from England various documents which demonstrate that cholera and other kindred diseases are often produced by foul emanations from obstructed drains and the like. In reference to the mode in which the morbid cause entered the system, he stated that he had it on unquestionable authority, that a gentleman who had merely called at the hotel, who had not even taken a glass of water, had experienced the symptoms peculiar to the prevalent affection; and also, that three ladies, under like circumstances, were similarly affected, within twelve hours after having made a common social call on a friend.

Dr. Bell had heard of cases similar to those just mentioned; also of persons lodging in different portions of the house, those in the one part suffering the disease, the others escaping. The case, he said, is certainly a puzzling one, nor should we attempt to decide it until we have before us much more complete information than at present. It is not without example, certainly, for putrid exhalations to engender or develop cholera; but the disease in this case was different from cholera. It should be particularly remarked as a very important fact, that the disease in question occurred at two distinct periods, between which there was a space of several weeks during which no cases of it occurred. The second outbreak took place while the President elect was a guest in the house.

Dr. Emerson.—I have heard the suspension of the disease for several weeks explained as follows: In February there was a long

period of mild weather, during which the house was thrown open, and simultaneously the disease declined; afterwards, on the return of cold weather, the issues of the house were kept closed, and the disease at once resumed its course. A medical gentleman who had rooms in the house, but did not take his meals there, on the morning of his departure breakfasted in the hotel and directly afterwards left it. On his way to the cars he was seized with vomiting, and felt very much indisposed. It is a circumstance not to be overlooked that there certainly was a foul atmosphere pervading the house, and many persons described it as offensive or stifling.

Dr. DILLARD.—I was in Washington in the early part of March, and during a cold spell of weather. The air of the hotel was unquestionably stifling and offensive. A number of my friends who only visited the house without eating or drinking there, suffered attacks of the epidemic. The house is a very old one, very much out of repair, decayed and filthy, and I found the odor of its atmosphere so noisome that I got out of it as quickly as I could. I should suppose the air was an abundantly sufficient cause for all the disease which affected the lodgers. The drains of the house open into the river or creek near which it is built, and these had become choked with filth, so that with every flood tide the refuse from the house was prevented from escaping, while with every ebb tide the effluvium was drawn towards the house. Thus the cellars became charged with foul air, and this was dispersed over the house by means of the furnace flues.

NOTE.—Since the meeting of the College at which the above conversation took place, Dr. Dillard has received the following letters in answer to inquiries made by him.

WASHINGTON, D. C., *May* 8, 1857.

MY DEAR SIR: I am in receipt of your favor of yesterday, and shall take pleasure in furnishing the desired information, as soon as I shall be able to post myself accurately on the subject of your different queries.

It is very natural that the "National Hotel Disease," as it is commonly called, should excite a wide spread interest, not so much from its intrinsic features, as from the many absurd and improbable theories which wonder mongers have disseminated in regard to its origin. The attempts that have been made in this city to explore the etiology of the disease have proved rather fruitless, in conse-

Dr. EMERSON suggested that there might have been at the time an epidemic constitution predisposing to the development of gastro-intestinal diseases.

quence, I think, of people approaching the subject with their minds preoccupied with some single cause—as dead rats—poisoned food, or something of the kind.

The hotel stands upon marshy ground, the sewerage here, as everywhere else in the city, is deficient, and the ventilation, as all who have entered the premises must have realized, is abominable—at all events in the lower part of the house.

You may, perhaps, remember, there is a descent from the Capitol as far along Pennsylvania Avenue as the site of the hotel, and a similar sloping of the land from the northward of the hotel to the avenue. From the avenue to the canal, some five hundred yards to the south—the receptacle of a good deal of the filth of the city—the ground approaches a level, while south of the canal, there is a decided elevation.

There is thus, in the immediate vicinity, an accumulated drainage from the east and north, with, in my belief, no adequate outlet.

The sewerage of the city, as I have already observed, is very imperfect—the defects being in the position, number, and capacity of the subterranean conduits.

The hotel is a very old structure, erected, in all probability, before there were any drains at all in the vicinity; the nature of the soil, perhaps, made a good deal of piling requisite to secure a foundation; all of which is doubtless in a state of decay, and furnishes an inexhaustible source of cryptogamic growths. The building is quadrangular, with exposure to the south (principal), west, and north. The streets to the west and north are not remarkable for cleanliness, and are unpaved. Several stables are located on the street to the north of the hotel.

The cellars must necessarily be damp, and the odor of the lowest part of the house sufficiently attests the degree of ventilation.

The house has undergone sundry improvements, as they have been called, at various times, but they have been principally of the ornamental kind. A heating apparatus has lately been introduced, but I am not sure whether by steam or hot water, though I incline to the belief that it is by the latter plan.

I did not intend to write so much without seeing some person familiar with the matter, but what I have said, *currente calamo*, will not interfere with what I may be able to give you on another occasion.

Very truly,
W. WHEELER.

Dr. DILLARD, U. S. N.

WASHINGTON, *May* 9, 1857.

Surgeon THOMAS DILLARD, U. S. Navy, Philadelphia.

MY DEAR SIR: In reply to your inquiry relating to the "National Hotel" of this city, I think you will find the following statement fully reliable. The information was obtained by personal investigation of the premises, and from those intimately acquainted with the building.

The principal passages on the ground floor, the dining rooms, and parlors, are heated by steam generated from a boiler in the basement, under the breakfast

Dr. MORRIS.—If that were so, the case would be brought within the usual category of causes developing cholera and other bowel

room in ordinary; the boiler room being nearly forty by thirty feet dimension; adjoining this, is a smaller room in which there is a steam engine used for elevating water; these rooms are well ventilated; the sleeping apartments are warmed from grates placed in them, as also the large sitting room for gentlemen.

The cellars extend under the entire building, and have the usual ventilation of this place, except, perhaps, those fronting on Pennsylvania Avenue. In these there is considerable dampness at this time.

At present, the cellars are lumbered with rubbish, the result of some recent alterations, and the house being now closed, a correct opinion cannot be formed of its usual condition; the custom has been to clean and whitewash the cellars every spring.

The water closets are constructed with a jet of water to each, and the drainage from them through iron pipes into the common sewer of the street is entirely distinct from all other drainage of the house.

The garbage is carted daily from the building, and the wash water reaches the street sewer by means of a drain made for that purpose.

The hotel was formerly heated by furnaces; these have been abandoned, but the flues remain open, and afford a direct communication for the atmosphere below to many of the rooms on the first floor.

Through the southwest corner of the basement, or cellar wall, at the corner of Pennsylvania Avenue and Sixth Street, there is a direct communication with the public sewer. Some four or five sewers converge near this point, and discharge their contents into a common trunk, which, with a low grade, empties into the canal, distant a few rods; through this opening, there is at this time perceived a most unpleasant odor, which, at times, can be distinguished as far as the cellar door leading to the office of the hotel. This odor arises, evidently, from the sewer outside the building, and formerly escaped into the street through an opening or grate in the pavement at the corner of Sixth Street and Pennsylvania Avenue, distant about twenty feet from the hotel; but, in consequence of the closure of this opening, which was done by public authority, the effluvium is now, by the pressure of the atmosphere in the main trunk, forced through the aperture in the cellar, and so disseminated to a large portion of the building.

The boiler for generating the heat is about 100 feet removed from the aperture referred to, and in an entirely different part of the building.

It may be well to observe that, prior to the closing of the aperture at the corner of Sixth Street, the National Hotel enjoyed the usual health of this city. The proprietors could not perceive that an entire change of water and cooking utensils had any effect in modifying the epidemic. Porcelained iron cooking utensils were substituted for the original copper ones.

I have thrown together, hastily, the foregoing observations, and in conclusion have to remark, that it is the expressed desire of the proprietors that every fact connected with their late disaster may be brought to light.

I am, with esteem,

very sincerely yours,

CHAS. D. MAXWELL.

complaints in limited localities, with unusual violence or malignity. Such a case occurred at the Baltimore Almshouse. Cholera prevailed throughout one wing of the establishment, and there only. Its causation was finally traced to a large dung heap from which the prevalent winds carried the emanations directly to the part of the house where the disease prevailed.

In reference to the lesions belonging to the affection, several Fellows stated that they had nothing in common with those of cholera, but resembled the lesions of dysentery, and were usually confined to the colon.

CASE OF TRAUMATIC HEMORRHAGE INTO THE POSTERIOR MEDIASTINUM.

Dr. NEILL: On Sunday, April 12th, about midday, I was called to see a man who had been stabbed in the neck between 11 and 12 o'clock on the previous night.

The bystanders stated that he had been drinking during the evening, and that when he returned to his home after the accident, he constantly walked about the room, in a restless, agitated state, declining to give them any satisfaction as to the mode of injury, although he spoke rationally when questioned. They stated also that this restlessness increased, and that he had great difficulty of breathing; that he would go up and down stairs, refusing to lie down or sit still, and complained of a constriction about his chest and neck. He continued to speak until about 10 o'clock the next morning.

When I saw him at about 1 o'clock, they had induced him to go to bed, although it was with difficulty they could keep him still. He did not speak when spoken to, was restless and oppressed. His pulse was full and regular, and his color natural; his clothes were not stained with blood, and upon inquiry I found there had been no external hemorrhage. His distress seemed to be occasioned by some interference in the action of his respiratory apparatus, and yet upon percussion, the resonance of the thorax clearly demonstrated that there was no hemorrhage into the cavity of either pleura. The wound was about one inch above the clavicle just over the junction of the sternal and clavicular origins of the sterno-cleido-mastoid muscle.

I directed his friends to take him to the Pennsylvania Hospital, and in the afternoon I examined him still more carefully. His symptoms were of the same nature as when I saw him in the morning, but greatly aggravated. His restlessness and moaning had increased, and his difficulty of breathing was so great, that he would occasionally become desperate and almost throw himself out of bed. His jactitation was so great, that his limbs had to be restrained. His expression was distressed, rather than stupid, and his pupils were partially dilated; his color was natural, and his skin of ordinary temperature and moisture; his pulse was natural in volume and frequency. There was no paralysis, but he had had an involuntary discharge from the bowels. There was no regular expansion or contraction of the chest upon respiration, and there seemed to be no action of the diaphragm. The respiratory murmur was heard all over both lungs, with some laryngeal rhonchus; he had twice expectorated a small quantity of bloody mucus on his way to the hospital. The action of his heart was feeble, upon auscultation, though the pulse was not so.

The possible causes of these peculiar symptoms seemed to be very few; there was no injury of the brain, no loss of blood, or effusion into the cavity of the chest. The symptoms appeared to indicate with some probability a division either of the par vagum, the sympathetic, the inferior laryngeal, or the phrenic nerve.

On Monday the dyspnœa had increased, the pupils became contracted, the skin was somewhat livid and relaxed, the pulse feebler, and he was drenched with perspiration.

Death took place at half past seven o'clock in the evening.

Post-mortem Examination.—External inspection of the body showed tumefaction of the neck around the wound, flatness of the chest below the clavicle on the left side, and deep discolorations of the skin upon the back of the neck and shoulders.

The wound in the skin was three-quarters of an inch in length, running obliquely outwards and downwards; a probe passed into it to the depth of four or five inches, showed its direction to be downwards, inwards, and backwards. A careful dissection of the parts proved that the large vessels were uninjured, although the knife had grazed their sheath, which had become infiltrated with blood. The par vagum, inferior laryngeal, sympathetic, and phrenic nerves were carefully exposed, and found

to be intact; the only nerve divided was a part of the descendens noni. The knife had passed through the sterno-cleido-mastoid muscle on the internal side of the sheath of the vessels, dividing the external edge of the sterno-thyroid muscle, and reached the œsophagus. The œsophagus was not injured, nor was the trachea, but the latter contained bloody mucus. The deeper portion of the wound was distended with coagulated blood which had probably escaped from the division of a thyroid vein.

The thorax was next examined by removing the sternum, and a portion of the ribs and their cartilages. A large clot of blood occupied the anterior mediastinum and extended upon each side of the pericardium, accompanying the phrenic nerves. The anterior portion of the lungs presented nothing unusual, but a remarkable dryness of their pleural covering; and upon compression there was no crepitation and great inelasticity of the tissue. The posterior part of the lungs was congested, and in each pleura there was a small amount of serous fluid slightly discolored by blood.

Nothing as yet had been discovered which could positively determine the cause of death, but upon lifting up the lung upon the left side, the posterior mediastinum was found to be greatly distended by blood. This distension reached as low down as the ninth dorsal vertebra, and was more bulging on the left side. When the pleura was slit up, clots of blood to the amount of six or eight ounces escaped, which had compressed the ganglia of the sympathetic nerve. Here was a satisfactory explanation as to the cause of death. It might be called an apoplexy of the sympathetic nerve. The gradual increase in the severity of the symptoms was owing to the functions of these ganglia being gradually impaired by the effusion of blood. The brain was examined, but presented no unusual appearance beyond an increased turgescence of the veins of the pia mater, which probably resulted from the mode of death.

I had never seen a similar case, and as the phenomena resulting from an injury of the sympathetic nerve in the human subject have been rarely observed, I thought it sufficiently important to communicate it to the College.

Stated Meeting, June 3, 1857.

Dr. Wood, President, in the chair.

Present, twenty-five Fellows.

Dr. Pepper stated that he had recently seen a case in consultation which was certainly unusual and obscure, and offered some points of interest. The patient was an old man; his principal symptoms were tympanitis, diarrhœa, red tongue, sordes on the teeth, and relaxation of the sphincters. In order to relieve the extreme tension of the abdomen, turpentine was used, but without effect, and then nux vomica was resorted to, and a quarter of a grain of the extract ordered to be given three times a day. The first few doses were followed by great rigidity of the arms and abdomen, but the tympanitis was relieved. In this case there were some symptoms of typhoid fever, but the age of the patient rendered this view improbable; the rigidity of the muscles became general, but gradually disappeared upon the withdrawal of the nux vomica, and consciousness was good until death. No autopsy was held.

PALSY AFTER SCARLET FEVER.

Dr. Pepper inquired whether, during the late epidemic of scarlet fever, the Fellows had observed paralysis as a result or sequela of the disease. He had, himself, had two cases. One of them was a mild case, so far as the proper symptoms of scarlatina were concerned, but the patient was attacked with parotitis and swelling of the cellular tissue of the neck, followed by paralysis of the arm, and afterwards by general paralysis. There was no disturbance of the intellect. One of the patients died, the other remains without improvement. Dr. Pepper's impression was that the inflammation of the superficial parts of the neck had extended towards the spinal canal, inducing pressure upon the spinal marrow and paralysis.

Dr. Condie had seen but little of scarlatina during the late epidemic. The few cases that fell under his care were generally

of a very mild character, and terminated favorably under a simple treatment. No one of them was followed by the slightest indication of paralysis.

Some eighteen years ago, a case of scarlatina was attended by him in a male infant, over three years of age. It was of the anginose form, and ran a favorable course. Several weeks after apparently entire convalescence, extensive anasarca suddenly made its appearance, with albuminous urine. As the dropsical symptoms subsided, and the albuminosity of the urine disappeared, the patient complained of constant intense pain of the head, referred by him to the temples, upon which his hands were almost constantly pressed. In a few days, a copious discharge took place from both ears, and the pain at once ceased. The discharge was, at first, a whitish fluid, but soon became purulent, and then dark-colored and very fetid. The parents of the child, who were very intelligent persons, stated that they had detected, in the discharges from the ears, small bones or portions of bones; these Dr. C. did not see. Two weeks after the discharge occurred, paralysis of the entire left side took place, which gradually increased in extent, especially in the upper extremity, so that the child was unable to move it in the slightest degree. The lower extremity was affected to a less extent. Contemporaneous with the paralysis, complete deafness set in, and soon after, the child became dumb. The patient is still living, with persistent paralysis, and entirely deaf and dumb. No contortion of his features is present, nor, from the first, was any affection of the sphincters observed.

Since the period of his childhood, the patient has enjoyed good health, is very cheerful, fond of play, and delights in good food. Every effort to cultivate his intellect has failed. His parents and teachers have been unable to teach him even the use of the simplest signs employed in the education of the deaf and dumb. He is able, however, to express his wants, his satisfaction, and his dislikes, in a way perfectly intelligible to the members of his family and those constantly about him. This is the only instance in which, during the entire course of his experience, Dr. C. had seen either temporary or persistent paralysis as a sequel of scarlet fever.

Dr. H. HARTSHORNE stated that about a year ago he met with paralysis after scarlet fever in a girl about five years of age. It, however, disappeared gradually and completely.

LUPULIN IN IRRITABLE BLADDER.

Dr. WOOD said that some months since he met with a case of irritable bladder, in which the desire to urinate was very frequent and distressing. Owing to the peculiar susceptibility of the patient, it was impossible to use opium, and other narcotics were entirely without effect. It then occurred to him to try lupulin, which Dr. Page first, and others after him, have found so efficient in allaying irritation of the genital organs. Dr. Wood administered five grains every two hours, beginning towards evening, and continuing until its effects were experienced; and this plan was repeated daily. The patient rapidly improved under the use of the remedy. The improvement might have been accidental, but the case appeared to him of sufficient interest to be mentioned, as it might induce others to make trial of the remedy, and thus determine its value.

PIECE OF LEATHER SWALLOWED BY AN INFANT.

Dr. HEWSON: I recently attended an English lady in confinement with her fifth child. All her previous children had been committed to the wet nurse, but the father was exceedingly anxious for the mother to nurse the present child, if possible. For ten days every effort was made to develop the mammary secretion, but unavailingly, to the great distress of the mother and the irritation of the child, who was fed with the bottle. On the night of the tenth day, in order to get a quiet night's rest, the nurse, an Englishwoman, folded a piece of wash leather into the shape and size of the nipple, and, having saturated it with milk, gave it to the mother to hold between the child's lips. This expedient answered the purpose, but early the following morning the substitute for the nipple was missing, and, in spite of every effort, could not be found. On being told, with much alarm, what had happened, I urged a further search, supposing it impossible that the infant should have swallowed the leather, as I was informed it was, when unfolded, as large as the palm of my

hand. There was nothing visible in the child's throat, nor was there any distension of its abdomen, and it seemed also perfectly well. Before my arrival in the morning, the nurse had administered a dose of castor oil, and in the evening, just before my second visit, the child had been fed, over-distending its stomach, and exciting vomiting. By this the missing leather was brought to light. I now exhibit it, and it will be seen to be nearly circular in its form, and to measure three inches in diameter.

Dr. BACHE referred to the use of electricity as a mode which had recently been found successful in establishing or promoting the mammary secretion, and inquired whether Dr. Hewson had employed it.

Dr. HEWSON: I did resort to it in this case, but without any advantage; but in three other cases of retarded or imperfect secretion of the milk, I made use of it with entire success, employing for the purpose two small metallic plates, one of silver, and the other of zinc, connected by wire, such as has been recommended by Dr. Ruschenberger, of the navy, for the treatment of bed sores. These little plates were placed on a layer of moistened sponge on either side of the breast, and worn constantly by the patients alluded to for a number of days.

SUMMARY OF THE TRANSACTIONS

OF THE

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

FROM AUG. 5, 1857, TO FEB. 3, 1858, INCLUSIVE.

1857, *Aug.* 5. *Injurious Effect upon the Eye of the Light from the Fish-tail Burner.*—Dr. RAND desired to call the attention of the Fellows to the injurious effect upon the eye of the unsteady light produced by a common form of gas burner.

The burner alluded to is known as the "fish-tail, or union jet," and is almost the only one now introduced by the gas-fitters. The gas issues at its tip in two opposing currents, which impinging nearly at right angles, cause the gas to spread in a sheet of flame, the plane of which is at right angles to that joining the orifices of the jets. When the pressure is increased beyond a certain point, the flame rises in an irregular column, accompanied by a hissing or humming noise; this is termed "blowing."

It must be manifest from an inspection of the structure of the burner, that the least inequality in the amount of flow through the two tubes leading to the jets will produce an unsteadiness of flame, and this unequal flow will be most marked when the pressure is below the maximum for light, without amounting to that sufficient to produce "blowing." To avoid this blowing, the gas is generally kept turned down, below this maximum point, and it is very rare to see a steady light from one of these burners.

The effect of this flickering is very annoying to one unused to it, causing pain in the eyeball, confusion of vision, headache, and other symptoms of fatigue of the optic nerve. In many cases the eye, after a time, becomes accustomed to it, but at its own cost; in others this tolerance does not occur, and Dr. Rand was acquainted with several persons who could never employ this light, but used candles or the Argand burner when reading or writing.

The almost universal adoption of the "fish-tail" burner was due to its convenience and great relative economy, giving as it does about twenty per cent. more light for the same consumption, when compared with the bats-wing burner, but being equalled in this respect by the best forms of Argand. It has also the advantage of giving warning by "blowing" when burning gas wastefully, which the bats-wing does not.

Dr. Rand was not prepared to condemn entirely the use of a contrivance so convenient and economical; but merely suggested the propriety of substituting for it, for purposes of reading, writing, sewing, etc., the steady flame produced by the bats-wing or the Argand burner. The former, from the shape of its flame, is not well adapted for a shade; the only objections to the latter are its requiring the use of a glass chimney and its liability under increased pressure to smoke. He had, however, used an Argand burner for years, and found it to give very little trouble, and was satisfied that no one who would compare the effects of the two for a single hour would ever exhaust his eyes by the flickering "fish-tail," when the steady sunlike blaze of the Argand was within his reach.

Oct. 7. *Fatal Enlargement of the Thymus Gland with Subjacent Tumour.*—Dr. HENRY HARTSHORNE exhibited a specimen, obtained from a patient of Dr. W. H. Hazzard, in which disease of the thymus gland appeared to be the immediate cause of death.

The child was five months old when it died. It had always appeared to be healthy and well developed; and presented no symptoms of disease to attract attention, up to the moment of death. It was suckled by its mother at 2 o'clock of the morning of its decease, when it went to sleep as usual. At about 7 A. M., it was found dead, lying on its back, with blood about the nostrils, and the jugular veins distended. Examination of the body displayed no peculiarity except the morbid alteration of the gland, and the results of its pressure upon other parts. The heart was forced down close upon the diaphragm. The vena cava descendens contained an unusual quantity of blood. The thymus itself was very much enlarged; and, below the proper gland, but connected with it, and inclosed in a continuous enveloping membrane, was a mass whose appearance and consistence resembled those of fatty structure. At the time when first seen by Dr. Hartshorne, it had so shrunk and altered under the influence of alcohol, that no minute or microscopic inspection of its characters was practicable. Its dimensions, however, even at that period, were as follows: 3 inches in perpendicular length, 2 inches in width transversely, and $\frac{7}{8}$ of an inch in antero-posterior thickness; being fully twice the volume of the heart, and about half the size of the right lung. The thymus at that age (five months) averages commonly about $1\frac{1}{4}$ inch in length by $\frac{3}{4}$ of an inch transversely. In Sir Astley Cooper's monograph on the thymus, it is described as weighing about half an ounce, according to Meckel, at nine months, and increasing up to the end of the first year; after which it decreases.

Very little information, however, is to be found in systematic treatises, or elsewhere, in regard to the pathology of the thymus gland. A quite similar case to the above was narrated, with a drawing, by Herbert Browne Beck, in *Guy's Hospital Reports*, 1st series, vol. vi. p. 188. The principal difference, in Beck's case, was, that the fatal result, occurring in the fourth month of

the child's age, was preceded for a length of time by paroxysmal attacks of dyspnœa, cough, &c.; which were quite absent in the case of Dr. Hazzard's patient.

Rokitansky simply expresses a doubt whether the "thymic asthma," described by Drs. Kopp, Hirsch, Montgomery, and others, as occurring in delicate children, is connected with enlargement of the thymus. It is asserted by Handfield Jones and Sieveking, that it does not necessarily depend upon this, as the asthmatic attacks have been shown to occur, in some instances, with an unnaturally small thymus, and to be absent in other cases where the gland was enlarged. Simon mentions a case in which suffocation was occasioned by the pressure of a tumour apparently of a sarcomato-cystic character, in the situation of the thymus; and Sir Astley Cooper met with a case of encephaloid growth in this part.[1] Dr. Gross states, in his *Pathol. Anatomy*, that no well authenticated case of steatomatous degeneration of the thymus is upon record. The case under consideration might be considered as one rather of fatty *deposit*, or hypertrophy, than of degeneration. There is some interest in remembering, in connection with it, the fact stated by Simon, in his Essay on the Thymus, that this gland is annually converted, in the hybernatory rodentia (as the marmot), into a large *fatty mass;* and that in the ophidia, especially those which are capable of hybernation, an accessory *fat body* is associated with the gland.

There was nothing tuberculous in the organization of the child from which the preparation exhibited was obtained. The main singularity of this case—beyond the comparative rarity of recognized affections of the thymus—was the absence of premonitory symptoms. Death seemed to be accounted for by the pressure of the tumour on the descending vena cava and right side of the heart, so as to obstruct the circulation to a fatal degree; but why this pressure should not have occurred before, to such an extent as to produce symptoms of congestion of the brain or lungs, is difficult to explain.

Dr. Condie had some doubts whether the symptoms were not due to an undeveloped state of the lungs rather than to enlargement of the thymus. Nearly all of the late writers, especially German, have concluded that Kopp's asthma is not produced by enlargement of the thymus gland. There are three or four cases in the German journals in which tumours below the thymus have produced disturbance of the circulation and respiration, and finally death; but these have nothing to do with the size of the thymus. In this case I cannot believe that so soft a body could have pressed down the heart or interfered with the circulation of the bloodvessels of the neck. Still the physiology and pathology of this subject are unsettled.

Dr. H. Hartshorne called attention to the fact that in this case the compressing agent was not only the thymus, but a tumour beneath the thymus. Here the death was sudden; a child of four months, previously well, found

[1] Jones and Sieveking, Path. Anat., p. 541.

dead—no other cause of death being apparent. The child was well developed; had had no asthmatic symptoms. The distension of veins seemed most *probably* to depend on pressure of this tumour.

Congenital Malposition of the Liver.—Dr. J. C. Morris drew the attention of the College to the following notes of an autopsy made by him:—

During the summer of 1853, I was for a time resident at the Episcopal Hospital, and thus met with a case in which a mistaken diagnosis was made in consequence of an unusual anatomical peculiarity. Mary Buchanan, aged 50 years, was admitted on the 23d of July, suffering with extreme œdema of the legs and ascites. She was very feeble; coughed incessantly day and night, and retched frequently; the skin of her legs had ulcerated in many places from the distension by fluid, which oozed away so fast as to form a puddle under her feet while sitting till a bed could be prepared for her. I could not detect any cardiac disease; the urine was highly albuminous, but not more so than is often the case where the kidneys are not degenerated; the ascites was not so great as to interfere with the recognition of hepatic dulness on percussion, extending downward almost to the crest of the ilium, on a line with the umbilicus. It was, therefore, supposed to indicate enlargement of the liver as the cause of the dropsy. She was subjected to an ordinary routine treatment of stimulants and tonics, calomel, squill, and digitalis, cream of tartar and juniper berries, until she finally sank on the 22d of August. On opening the thoracico-abdominal cavities, the heart and lungs were found to be healthy; the liver also appeared perfectly normal in structure, but instead of occupying the concavity of the diaphragm, it was lying on the right side, so that the left lobe occupied the ordinary position of the right lobe, while the latter was forced downwards and forwards. This appeared to be congenital. Both kidneys were far advanced in granular degeneration.

Nov. 5. Foreign Body in the Lungs.—Dr. Wood stated that he wished to make a brief communication to the College on a somewhat interesting event which had come under his notice. He would begin by quoting from the Quarterly Summary of the Transactions of the College, Nov. 1, 1854, the following statement by Dr. Pepper:—

"Within the last few weeks, I have examined the case of a little girl supposed to have a piece of filbert shell lodged in the lungs; the physical signs, as well as the previous history, render it highly probable that such is really the case; and yet, although it is now about one year since the accident, the general health is but little if at all impaired, the only inconvenience being a slight occasional cough."

This patient, Dr. Wood went on to say, was a niece of his own, and was about six years old at the time of the accident, which happened in May, 1853. Ever since that time, up to a recent period, she had been subject to a cough,

sometimes milder, sometimes more severe, with occasional violent paroxysms; and, upon slight exposure, or even without exposure, attacks of bronchial inflammation with more or less fever would supervene, sometimes confining her to bed, and lasting several days or even weeks. There was frequently a wheezing sound to be heard in her respiration at a little distance; and bronchial râles, sibilant, sonorous, and mucous, were observable upon auscultation more or less at all times, and in almost all parts of the chest, but loudest over the upper part of the right lung behind. There were never any physical signs of pneumonia; no blood or pus of any amount was known to have been expectorated; no consolidation of the lung was in any portion or at any time discoverable. What local disease existed appeared to be purely bronchial.

At one period there was so much paleness, emaciation, and debility, as to suggest the idea that tuberculosis might be impending; but the symptoms improved under the continued use of cod-liver oil and a nutritious diet.

Great care was at all times taken by the parents that the child should not be exposed to the danger of taking cold, and that she should not be allowed to over-exert or fatigue herself. When the symptoms of acute bronchial inflammation were apparent, moderate treatment of an antiphlogistic character was adopted; as rest, low diet, and the use of gentle saline cathartics and refrigerant diaphoretics. At other times an expectorant mixture was occasionally used, with a little solution of morphia in it, to control the cough when troublesome.

While absent from the city in August last, Dr. Wood received a letter from the mother of the child, informing him that, in a suffocative paroxysm of coughing, she had suddenly thrown up the offending cause, which proved, as had been supposed, a piece of filbert shell, and that since that time the cough had disappeared, and the child been restored to health. On his return he examined the chest carefully, and could discover no abnormal sound; and at the present time the little girl is free from every sign of disease.

The fragment of shell was discharged on the 16th of August last; so that it had remained within the chest for at least four years and two months. The mother stated that when she first saw it, there appeared upon its surface a covering of somewhat tenacious matter, having an offensive smell. Dr. Wood presumed that the piece of shell had been lodged during this whole period in the right bronchus, where it had probably become fixed immovably in consequence of its size. It is of an irregularly oblong shape, with one rather sharp and projecting angle, somewhat concavo-convex, four-tenths of an inch long, by somewhat more than three-tenths in breadth, and about one-tenth in thickness.

Dr. Wood exhibited the fragment to the College.

Dr. Gilbert said that he was acquainted with a boy who, in the fifteenth or sixteenth year of his age, discharged from his air-passages a trunk nail, five-eighths of an inch in length, which was supposed to have been swallowed

several years before its expulsion. The health of the boy was subsequently improved.

Chronic Disease of the Urinary Organs characterized by Anomalous Symptoms.—Dr. Ruschenberger read for Dr. O. J. WISTER, of Germantown, the following communication:—

The diagnosis of internal tumours is admitted to be sufficiently difficult and uncertain; and the following case, in some degree illustrative of this, may not be entirely without interest.

The patient, aged 64, of active and temperate habits, and free from hereditary predisposition to any of the diseases which are ordinarily believed to be transmissible, applied to me early last spring. He complained of loss of appetite, and slight pain and nausea, which occurred about an hour after taking food and continued in a greater or less degree for two or three hours. There was no epigastric tenderness, the tongue was moist and slightly furred, the bowels somewhat sluggish, and the general strength rather diminished; but beyond the inconvenience already mentioned, there was no complaint. The case seemed to be one of laborious digestion, arising from debility of the secreting apparatus of the stomach. I directed him to take five drops of nitro-muriatic acid, with some comp. tinct. of gentian, before each meal, and a pill of blue mass and comp. ext. colocynth at bedtime, should the bowels remain torpid. Under this treatment he so far improved, that after three or four visits he no longer came to me, and I lost sight of him till the early part of October (about six weeks before his death), when I was sent for.

At this time he was extremely feeble and very much emaciated; his complexion had a pale ashy hue, the tongue was coated and rather dry, the pulse frequent and compressible, and the whole appearance haggard and worn. He said that for several weeks he had not been so well, but hoped to get on without assistance; and had, therefore, not applied for aid until the rapid increase of his symptoms had alarmed him.

The discomforts of the spring had returned in an exasperated degree; the loss of appetite was total, and the nausea had increased to vomiting almost every article of food as soon as it was swallowed. Still, he spoke of but little pain, and the epigastric tenderness was so inconsiderable that firm pressure was easily borne. After many questions, he finally informed me that when he lay on his back the abdomen became hard; and on putting him in that position, I discovered a tumour which extended from the pubes to about an inch above the umbilicus. The tumour was sufficiently prominent to be obvious to the eye alone; whilst on pressure it yielded to the hand a sensation at first somewhat elastic, but when more firmly pressed it seemed fleshy. The examination gave the patient no pain, nor did the manipulations produce any desire to pass water, as might have been anticipated had the disease involved the bladder. The patient stated that for some years he had been

accustomed to urinate more frequently than in earlier life, but did not think that it required any particular effort.

Finding that some enlargement of the prostate gland existed, I introduced a catheter, from which trickled about a tablespoonful of natural-looking urine, and then the discharge stopped.

During the period of my attendance, the tumour always presented the same characteristics, and the urine continued to be passed regularly, and in sufficient quantities. I concluded that he had chronic inflammation, or possibly cancer, of the stomach; and the probability of the latter being the case was much increased by the appearance of coffee grounds vomiting, which took place repeatedly for some days preceding death. As to the nature of the tumour I felt unable to decide, its obscurity baffling all certainty.

Autopsy, fifteen hours after death.—On opening the abdomen, the tumour proved to be the bladder, dilated to the capacity of a quart, and filled, but not distended, with urine. Old and firm adhesions connected the organ with the walls of the abdominal cavity, as well as with some of the neighbouring viscera; and I presume the small discharge of urine, which followed the introduction of the catheter, was due perhaps to these adhesions, which prevented the contractions of the bladder; while as the patient lay on his back, but a small quantity would be enabled to escape by gravity alone. The muscular coat was greatly thickened, but otherwise the organ presented a healthy appearance.

The lateral lobes of the prostate gland were enlarged about one-third, and had the effect of reducing the orifice of the bladder to a very narrow longitudinal slit, through which the urine must have been expelled with difficulty; and hence the dilatation and muscular hypertrophy. The right ureter and the pelvis of the corresponding kidney were much dilated, and the cortical portion of the kidney itself was rather diminished—otherwise it was normal.

The stomach exhibited every evidence of widely spread and long existing inflammation; the mucous membrane being generally thinned and softened, and in many places entirely removed, but towards the pylorus it was thickened and dark-coloured. The dimensions of the organ were greatly increased, but its functional ability must have been almost entirely lost. The liver and other viscera, save those already named, were quite healthy.

In reviewing the case, it seems strange that disease so situated and so extensive, could yet have given so little notice of its presence, that the comfort and physical capacity of its victim were not seriously affected until within a few weeks of dissolution.

Fatal Disease of the Appendix Vermiformis.—Dr. Caspar Wister read the following paper:—

The appendix vermiformis exists only in man and two superior species of the quadrumana, the orang and the ape. It is the type of the prolonged cæcum common to all other mammiferous animals. During fœtal life it is

continuous with the cæcum, and of the same size, and is developed from the cul-de-sac of the latter. Bischoff admits that the earliest recognition of its origin was by Meckel, in a fœtus seven lines in length.

The appendix is ordinarily three inches long, with a diameter of two lines, but is subject to great variety of size as well as position. Occasionally it is entirely absent, while Welga has seen it nine inches long, with many convolutions, and Autenrieth four, and as large as the colon.

It is entirely enveloped by the peritoneum, which forms for it also a true mesentery, holding it loosely in position. The muscular coat is not in bands, as in the colon, but surrounds it as in the rectum. The lining membrane is contiguous with that of the cæcum, and forms a valve at the entrance, the falciform edge of which looks towards the right and downwards. This valve, in most instances present, prevents the introduction of foreign bodies, but permits free exit to mucus, of which in adults there is a large supply, with rarely any admixture of alimentary matter; in infants, on the contrary, it is filled with meconium. The glands within are very numerous, and of the solitary variety. The extremity of the appendix is found at times in the pelvis, more commonly posterior to the colon; its position is entirely uncertain.

The function of this body is supposed to be similar to that of a gland; it furnishes an acid secretion which causes the chyme in the cæcum suddenly to acquire the property of reddening litmus paper.

The subject of the following notice was a boy of five years of age, fair skin, light eyes and hair, and delicate physical development, the son of a father lately dead with phthisis.

This child was visited professionally on the first of November; he was at that time out of bed and in his ordinary dress. His expression was languid; he had much fever, with a pulse of 130; his tongue was covered with a slight white deposit, through which the papillæ were projecting, the tip and edges being unusually red. He complained of pain in the abdomen, describing it vaguely as "stomach ache," without giving it any locality. This pain was spasmodic, recurring at short intervals; sharp and griping, but followed by complete relief. At this time there was no pain upon pressure, or soreness over the abdomen. On the afternoon of the day but one preceding, an ordinary walk had been followed by complaint of much weariness, and in the course of the night by the first expression of pain, and this without any chill. Throughout the following day there had been some fever and pain, but this was not thought of sufficient gravity to require medical interposition. There had been no motion of the bowels during the forty-eight hours immediately preceding the first professional visit; and at that time the case had the aspect of an ordinary slight attack of colic, with the sympathetic fever natural to a child of sensitive organization, teeming with sympathies ready to respond to slight disturbance of the economy. A mercurial purgative was directed, and a febrifuge at intervals. There had been no unusual article of diet taken,

except a moderate quantity of chestnuts. The night was much disturbed, with an increase of both fever and pain; the latter still in paroxysms.

The morning of the 2d, in consequence of the purgative not having operated, a copious enema was administered, which produced a large fecal discharge, none of it of a dry or impacted description, but containing distinct evidence of the operation of the mercurial. The child expressed a sense of relief; and, after a dose of oil and a fomentation adjusted over the seat of pain, he was confined to bed.

The following morning, Nov. 3d, there was a spontaneous motion of the bowels, without any improvement; there was now tenderness over the abdomen although, during the paroxysmal pain, pressure with the hand was grateful. This pain continued the chief subject of complaint, engrossing the child's mind, and provoking constant expression of distress. He commenced frequent doses of small quantities of calomel, with full proportions of ipecacuanha and opium, and employed gum in solution largely as a diet.

On the 4th, the symptoms were more grave, greater pain upon pressure, some tympanitis, and soreness attending all motion of the person; the spasmodic pain still, however, caused most complaint, and recurred at short intervals. Leeches were now applied over the entire abdomen, all other treatment being continued except the use of ipecacuanha; this was withdrawn in consequence of slight vomiting. After leeching there was less complaint of pain upon pressure, and soreness and nausea disappeared, while stimulation was found necessary.

On the morning of Nov. 5th, he presented excessive tympanitis, constantly recurring paroxysms of pain, great restlessness, sunken features, some tenderness upon pressure, and a pulse of 140. The child was, after consultation with Dr. Wood, placed under the full effect of opium, with an increase of the mercurial, and a blister over the abdomen. The rectum was relieved of a large accumulation of gas by the introduction of a catheter, but all motion of the bowels was in vain solicited. Under the full effect of the opiate there was less exhibition of pain and restlessness, without any arrest of disease; tympanitis greatly increased, and compressing the stomach caused regurgitation of fluid, and much depressed the vitality of the entire organism.

Nov. 6. Small quantities of oil of turpentine, with full doses of the officinal solution of morphia, were administered, accompanied by further stimulation. Gradual sinking under the unchecked march of disease, aided by the accumulation of gas, terminated in death on the 7th of the month, seven days after the commencement of treatment; this being the result of a disease deficient in symptoms sufficiently distinct for satisfactory diagnosis, and only decided in the steadiness with which it resisted treatment.

After death the abdominal cavity was found dry, with indications of peritoneal inflammation, consisting most conclusively in a few patches of pasty lymph upon the intestinal surfaces. There was an engorgement of the vessels

of the intestines, but being in longitudinal bars from the diaphragm to the pubis over the entire mass, there was some doubt as to the time of its occurrence, particularly as signs of incipient decomposition existed elsewhere. The intestines, from the pyloric orifice of the stomach to the sigmoid flexure of the rectum, were greatly distended with gas, and contained, beside, a large amount of fluid fecal matter. The stomach was empty and much contracted, the accumulation of gas having pressed it against the diaphragm, and in so doing caused the latter to encroach upon the thoracic viscera, thus rendering the last hours of life a most painful exhibition. The lining membrane of the intestinal canal was healthy throughout, and the cause of death was not manifest until the appendix vermiformis was examined. This was perforated at the lower extremity; the opening being large, with ragged edges, indicating ulceration, and partially filled by a plug of concrete matter of the size and much the shape of a date-stone, composed of small seeds, many of these, from figs, associated with concrete matter deposited in layers, and arranged in concentric circles.

In this instance, the extremity of the appendix rested in the pelvis upon the rectum, immediately over the fundus of the bladder; here an effusion of the contents of the intestines had occurred, but in small quantity, owing to the plug having filled the ulceration it had caused in the appendix.

The matter effused had given rise to excessive inflammation and the formation of much lymph, an attempt having been made to form an abscess and inclose the offending fluid. This deposit of lymph extended over a surface of three inches in diameter, was dark in hue, passing into gangrene; and, although adhering strongly to the intestinal surfaces, left them, when removed, healthy in appearance. Those surfaces of the sigmoid flexure of the rectum facing each other in the natural position were strongly adherent for a distance of three inches, and consequently prevented peristaltic motion at this point. This explained the retention of gas after the peritoneal symptoms became decidedly marked, although there had been a free passage of fecal matter in an earlier stage of the disease.

Again, the son of a very distinguished physician of this city, twenty-two years of age, passed Sunday evening in the society of his family and a small collection of his father's friends; he was gay and apparently in good health.

A few days previously he had complained of vague pains in the abdomen, not however of a degree to attract particular attention.

He retired on the evening above mentioned without any unusual sensations, but awoke before daylight with intense colic. This increasing, his father sent for a medical friend, after exhausting his own resources and failing to procure relief. Throughout Monday the symptoms of colic continued without abatement, and as the day wore on only presented indications of peritoneal complication. There was a large, though not excessive accumulation of gas, the most prominent feature of the case being excruciating pain, from which only partial relief was procured by complete narcotism. The bowels

resisted every attempt to procure evacuation of their contents after the earliest stage of the disease.

On Monday night and Tuesday morning the agony of the patient began to abate, but only to be followed by collapse, with cold damp surface and failing pulse; he gradually sank, and died in the course of the morning, after an illness of thirty hours.

The abdomen was found after death much distended by gas, free from effusion, and not affording any evidence of excessive peritoneal inflammation. The effect of disease in this case could be traced with much confidence, as the examination was made on Tuesday afternoon, a few hours after death, and but a short time was allowed for decomposition to embarrass investigation.

The appendix was much distended at its lower extremity by a concrete mass composed largely of raisin seeds. Its walls had not been perforated, and contained, with the foreign matter, an accumulation of pus, the whole forming a mass the size of a walnut. The appendix partially embraced the ilium, adhering to it strongly, and completely strangulated the small intestines; which were, for a distance of six feet above, of a dark mahogany colour and passing into gangrene. At the point of strangulation there had been much inflammation with large effusion of lymph; the walls of the tumour were thin, bursting under pressure of the fingers; but, having retained its contents during life, there was no discharge of foreign matter into the peritoneal cavity giving rise to peritonitis and masking the earlier symptoms of colic, as in the case just described.

Moreau cites a case identical with this, the ilium having been strangulated by adhesion of the appendix to the mesentery; while Marteau has seen the jejunum, and Scarpa the colon, embraced in the same manner and with a like effect.

Klockhof reports a case in which the appendix adhered to the colon by its extremity, thus forming a loop through which the small intestines had passed, producing strangulation.

Merling, in examining a subject, found the appendix adherent to the colon by its lower extremity, and forming a free communication between different sections of the intestine, but was unable to learn anything of the previous history of the individual, or under what train of symptoms this union occurred, evidently followed by entire recovery.

Again, the appendix is at times metamorphosed into a hydropic capsule, as reported by Rokitansky, from the presence of a concretion in the tube closing the canal and preventing escape of the mucous secretion. This causes the extremity to become dilated, and the mucus to pass into the condition of a serous membrane secreting an albuminous fluid.

Beside the foreign matter collecting in the appendix mechanically, tuberculous and typhoid deposits are laid down at times in its walls, giving rise

to ulceration. When, in addition to these varieties of disease, we consider the fact, that a long time may be required to establish the existence of serious symptoms, since it is asserted that a concretion may exist and only give rise to blennorrhœa, a correct diagnosis is only equalled in difficulty by its importance. Ulceration of the appendix is not necessarily fatal, but forms abscesses at times pointing in various directions, according to the variety of directions assumed by the appendix; and it is of great moment that these should be anticipated and discharged at the earliest period possible, and the risk of an internal rupture of their walls diminished. In the cases cited above, the earliest symptoms were of colic, excepting the obstinate constipation, the bowels having been freely evacuated without relief. In both, the earlier symptoms were overlaid by peritonitis; while in one there was an attempt to form an abscess, the constitution failing before it was accomplished.

Dr. LEVICK remarked that it would be a matter of interest to ascertain if there were any peculiar symptoms which would enable us to localize during life the seat of diseases of this kind. In neither of the interesting cases reported by Dr. Wister was there anything which could have directed attention especially to the appendix vermiformis, the phenomena presented being those of "colic without the ordinary constipation."

Though not of very frequent occurrence, diseases of this structure exist sufficiently often to render their observation of importance. Two autopsies had come under Dr. L.'s notice in which death had been produced by perforation of the appendix; while in a third case fatal strangulation of the intestine had been occasioned by a diverticulum closely resembling in size and appearance the vermiform appendage, but given off higher up the intestine. A record of this case was printed in the *Transactions of the College*, vol. 1, No. 10, N. S.; and, in the corresponding number of vol. 2d, a case of perforation of the appendix is reported by Dr. Gobrecht, and allusions are there made by other Fellows of the College to similar cases seen by them.

In the earlier symptoms of the first case reported by Dr. W., and still more so in that reported by Dr. Owen Wister, it would be remarked that there existed very serious disease with little or no pain. This absence of pain had been strikingly exemplified in some fatal cases which had come to the knowledge of the speaker.

The first of these was that of a man who died a few years ago in the Pennsylvania Hospital apparently of another disease; who had never complained of pain in either hypochondriac region. Upon examination, the liver was found to contain numerous encephaloid tumours. Another very similar case had recently occurred in the practice of a medical friend, in which there was no pain or other symptom leading to a suspicion of disease of the liver, which organ was found after death to contain quite a number of cancerous tumours. The third case was that of a man admitted into the hospital last summer, who

presented many of the symptoms of cancer of the liver; this disease was diagnosticated, and the patient especially interrogated as to the existence of pain in the hepatic region, which he uniformly declared he was free from. A post-mortem inspection showed the liver to be enlarged, and fairly studded with medullary tumours. Here, then, were three cases of malignant disease of an important organ, in which one of the most distressing symptoms was absent. Other similar cases have been reported elsewhere.

Dr. COATES could not recall the case alluded to by Dr. LEVICK. He had no doubt of the correctness of Dr. L.'s description of it; but this, like many other cases, had occurred at a time when taking notes was, from personal causes, entirely out of the question. Dr. C. had seen several curious cases in regard to the appendicula vermiformis.

Foreign bodies, such as may obstruct the passages, are more easily tolerated in the cæcum than in any other part of the alimentary canal; from the anatomical and physiological character of the part, this cavity is adapted to quiescence, and to the gradual accumulation of feces; the motions for the removal of which are unfrequent. The part is firmly fixed, well supported in the hollow of the os ilii, and but little supplied with nerves, or with irritability of the mucous membrane. These characters were all exaggerated in the horse, whose cæcum was of enormous magnitude, and adapted to very bulky accumulations from the character of the animal's necessary food.

Dr. C. then mentioned the very large calculus in his possession, the chemical analysis of which had been published in the proceedings of the American Philosophical Society by Dr. Boyé.

This calculus appeared to be the largest on record. On reference to Berzelius, the latter authority was found to state that calculi of a similar description, weighing 5 or 6 pounds, were not uncommon in the museums of Germany. The one in question weighed 11¼ pounds. It was originally in the anatomical museum of the Pennsylvania hospital, and was presented to Dr. Coates by the late Zaccheus Collins, Esq., in the name of the committee in charge, as a mark of respect for the labour bestowed on the museum by the former. From the record pasted on the stone, in the handwriting of the late SAMUEL COATES, it appears that the horse exhibited no visible signs of disease till within a week of his death. It occurred in a horse belonging to the late Mr. Peter Adams, miller, of Montgomery County, Pennsylvania. It was in the collection of an association called the School of Medicine, and was for several years in the possession of Prof. GIBSON. At a later period, the analysis of Dr. Boyé was made, and discovered it to be a mixture of the paleæ of oats, with a cement of phosphate of magnesia, the latter not exactly corresponding, as appears from the memoir of Dr. Boyé, with the atomic proportions of any of the phosphates of magnesia then on record; Dr. Boyé giving his own formula in his paper. After the process of Dr. Boyé, performed on fragments, the mass was sawed through the middle by Dr. Coates, who found it composed of concentric strata,

most of them similar in appearance to the external parts, but some of them of a slate-blue colour, a greater degree of hardness and a finer grain, with less exhibition of a chaffy structure; all surrounding one of those nails used to secure the shoes of horses.

Foreign Body retained upwards of Twenty Years in the Nasal Passage.—Dr. HAYS stated that the interesting case communicated to the College at its previous meeting by the president, in which a foreign body had remained four years in the lungs, recalled to his mind a case in which a foreign body had remained in the nose for, probably, upwards of twenty years, and a brief notice of which might interest the Fellows.

Some years since I was consulted by a lady of between twenty-five and thirty years of age on account of ozæna, with which she had been troubled ever since childhood. The disease resisted various means of treatment, and I discontinued my visits and lost sight of the case.

About four years subsequently, a Fellow of the College, Dr. Wm. Darrach, inquired of me if I recollected the case, and stated that the patient had afterwards fallen under his care, and that finding it very intractable, he had determined to examine into the condition of the bones of the nose. With this object he introduced a probe through the nose into the nasal fossæ, and while moving this instrument about there, he accidentally dislodged a mass which dropped into the opening of the nostril, and by an effort on the part of the patient was expelled. On examination, it proved to be an old-fashioned glass button with a brass wire eye.

The mother of the lady stated she remembered distinctly that one of her sons, when a child, had had a coat with similar buttons.

Dr. D. supposed that the lady, when a child, had been playing with one of these buttons, had placed it in her mouth, whence it had slipped into her throat and produced strangling, and that in the effort to expel the button it had been forced up through the posterior nares and lodged in the nose. Here as a foreign body it had become a source of irritation, and produced the disease for which we had been consulted.

Epistaxis arrested by the Administration of Common Salt.—Dr. CASPAR MORRIS reported a case of obstinate epistaxis, which had yielded promptly to the use of common salt taken into the mouth in doses of a teaspoonful. The idea of employing this remedy had suggested itself to Dr. M. while apprehending the probable necessity for resorting to mechanical means for the relief of the hemorrhage. Dr. M. was not aware that it had been employed in the treatment of this form of hemorrhage, and thought that, though apparently a trifling matter, the hint might prove important in some cases of this troublesome and sometimes fatal disease.

Placenta Prævia.—Dr. RHOADS read the following account of a case of placenta prævia: Having had my attention arrested by an original explanation of the spontaneous cessation of hemorrhage during labour, in certain cases of cervical attachment of the placenta, offered by Dr. Barnes in a lecture published in a late number of the *London Lancet*, I am induced to lay before the College the following case as illustrating the views there set forth.

I was called, 9 mo. (Sept.) 9, 1857, to see J. B., who had suddenly been seized with uterine hemorrhage. She was an apparently healthy woman, the mother of three children, and believed herself near the fifth month of pregnancy with her fourth child. I learned from her that, subsequently to the birth of her last child, she had suffered severely with inflammation of the womb, but that she finally regained good health, except having occasionally some leucorrhœal discharge.

She had retired that evening in usual health, and was awakened by a sudden gush of blood from the vulva, which, however, had somewhat subsided by the time of my arrival. Under the use of opiates and rest in bed for two days all symptoms of abortion disappeared; but, on the 13th, the hemorrhage again occurred more freely than before, with pain in the back and hips. Opiate enemata, and afterwards pills of opium and acetate of lead, were resorted to; and she was kept in bed for six days, only then being allowed to go into another room and recline upon a sofa.

Notwithstanding great carefulness, regular labour pains came on during the evening of the 23d, attended with such profuse hemorrhage that, when I saw her at 11 P. M., she was already blanched and feeble. The pains, which were weak and at long intervals, were accompanied and followed by an abundant discharge of blood, which gradually subsided in the intervals. The os uteri was sufficiently dilated to admit readily the introduction of the finger; but, as it was high up and surrounded by clots, no presentation could be perceived. The motions of the child were distinctly perceptible to the mother, and by the hand placed upon the abdomen.

As an abortion seemed inevitable, ergot was administered with the hope of bringing on more active pains. This result followed, the os uteri expanded to the size of a quarter of a dollar, the peculiar spongy feel of the placenta was recognized; and, as the hemorrhage was yet free, a tampon was inserted and stimulants given.

The tampon controlled the bleeding, and after remaining three hours it was removed, when the hemorrhage was found to have ceased. The os uteri was dilated, with the edge of the placenta protruding through it, the remaining portion of the latter being still adherent to the left and posterior part of the cervix. The finger was passed up beside the placenta to the membranes, which were ruptured, and the presentation found to be a footling one. Traction upon the foot was used, and the fœtus readily delivered. The placenta still remained

attached to the uterus, and required to be separated by the hand. Its tissue appeared to be normal but unusually firm.

Now what is the rationale of this simple yet interesting case? The primary cause of the abortion was, probably, the unhealthy state of the womb consequent upon the acute inflammation it had undergone as shown by the leucorrhœal discharge. The uterine contractions parting successive portions of the placenta, hemorrhage ensued from both the placental and uterine surfaces thus exposed; which hemorrhage was abundant during and just after the contractions, and subsided in the interval.

The pains were twice allayed by the opiates, but, finally continuing, the portion of the placenta implanted over the os uteri was wholly detached from and protruded through it. Now, since the longitudinal fibres of the uterus contract less near the cervix than towards the fundus, no further disjunction of the placenta took place; no new source of hemorrhage was supplied; while the pressure, during the presence of the tampon, had stopped the previously bleeding vessels by coagula. For the same reason the after-birth remained adherent after delivery, and required to be peeled off by the hand, the facility with which this was done proving the absence of any abnormal adhesions.

The remark of Dr. Simpson, that in these cases the child has usually been long dead, and that hence the vascularity of the placenta and of the parts to which it is adherent has greatly diminished, did not apply in this case, as the fœtus was certainly alive at the commencement of the labour.

1858, *Jan.* 6. *Melanotic Tumours of various Thoracic and Abdominal Viscera, without External Evidence of Melanosis.*—Dr. Griscom gave the following verbal account of a case, the fatal termination of which he had recently witnessed:—

On the 3d of 9th mo. (Sept.), 1857, I was asked to see M. M., æt. about 58 years, who was then residing a short distance out of the city. I found her in her bed, with some pain in her right side. She had moderate fever, a rather harassing cough, with congestion of the lower lobe of the right lung; much burning of the hands and feet; a tendency to sweat at nights; an exceedingly irritable stomach, with water-brash and gastrodynia; her alvine evacuations were light-coloured, and her conjunctivæ were somewhat stained with a bilious tinge. The water-brash was entirely relieved by bismuthi subnit.; her fever subsided under the use of refrigerant diaphoretics, and she became in all respects so much better as to ride out, and on the 22d of 10th mo. (Oct.) came to the city.

She appeared a good deal exhausted by her ride, and continued to suffer much prostration from slight exertion. She was, however, well enough to be down in the parlour a part of the time, and acknowledged but little discomfort, excepting a continual soreness in the right side over the upper surface of the liver, and a repugnance to all food excepting *buttermilk*—of this she partook

freely, and seldom rejected it, while every attempt to change her diet was followed by speedy vomiting. Her pulse during this period was uniformly about 80, her respiration natural, and very little cough, but her night-sweats increased; the burning of hands and feet became intense, and her skin was rapidly growing pallid. The liver was somewhat enlarged, and pressure over it gave pain; a hardened mass could be felt in the region of the pyloric orifice of the stomach.

Towards the close of the year, the pain in her right side became at times very severe; she was now obviously losing strength, and without any marked change in her symptoms, she died on the evening of the 4th of 1st mo., 1858.

Her previous history, as learned principally from a very intelligent acquaintance, is, that at 25 she was a vigorous young woman, with a florid colour and active temperament, but subject to hemorrhages from the mouth after severe exertion; the discharge of blood was not accompanied by cough, but was supposed to come from her stomach. She had been affected with water-brash and gastrodynia at times for the last twenty years, with precarious appetite and a very irritable stomach, accompanied by headache; she had also at times mild articular rheumatism, but was considered generally to enjoy good health. About a year ago it was obvious to her friends that her vigour was diminishing, although she did not acknowledge it.

The post-mortem examination was conducted by Dr. Levick, assisted by Drs. Griscom, Stroud and Whartenby.

Dr. Levick then exhibited a portion of the diseased structures, and gave the following description of the appearances observed at the autopsy:—

The *exterior* was pale; no discoloration; a slight layer of fat in the line of incision.

Thorax.—Upper portion of the pleura slightly adherent. An unusual amount of dark pigment matter on the anterior surface of each lung. On removing the lungs from the thorax, this dark deposit was found in great abundance, both anteriorly and posteriorly. It appeared to be placed beneath the pleura, near the surface of the lung itself, arranged in thin curved layers, corresponding somewhat to the outline of the ribs. Besides being deposited in this form, there existed also numerous round black tumours, in size varying from a pin's head to a filbert. From the base of the right lung a melanotic mass about three-fourths of an inch in length projected towards the diaphragm.

The *bronchial glands* were enlarged, and full of soft melanotic deposit.

The *heart* was of natural size, the muscular structure of the right side having undergone to an unusual extent the fatty degeneration. The valves were healthy. The aorta contained slight atheromatous degenerations with a scarcely perceptible discoloration of its lining membrane.

The *liver* was of a pale violet hue, and imparted a doughy sensation to the finger. More than thirty black tumours, varying in size from a pea to a

horsechestnut, were found on the under, and numerous similar masses on the upper surface of the gland. The interior structure was dotted throughout with minute black points.

The *gall-bladder* contained a quantity of dark bile, and a calculus of the size of a marble. Two masses of a greenish black colour projected from its lining membrane, and hung loosely into its cavity. In colour, consistence and general appearance, these closely resembled clots of blood undergoing decomposition; but were found, on close examination, to be of the same pigmentary formation.

The *spleen* was enlarged, and of a rich garnet colour.

The *pancreas* was hard, tumefied, and contained numerous melanotic tumours.

The *stomach* was ulcerated near the pyloric orifice; this latter was much narrowed. The whole of the lining membrane was dotted with small black patches. A similar discoloration existed throughout the whole tract of the intestines.

The *kidneys* were of natural size, and contained on their outer surface several small melanotic tumours. Three small black masses hung loosely in the cavity of the left kidney, while the lining membrane of each pelvis was studded with minute black patches.

The *uterus* was in size, &c., natural, but on the anterior and posterior lips were observed similar black patches encircling the os tincæ.

There would appear to have been in this case a remarkable tendency to the pigmentary or melanotic formation. Every internal tissue examined, with the exception of the circulatory apparatus, exhibited this. The infiltration, if we may use the word, extended to both normal and abnormal structure. That such was the fact, was proved by careful microscopic examination. Sections of the tumours taken from the liver were found by Dr. S. W. Mitchell to contain, beside the pigment granules, numerous characteristic cancer cells. In an examination of the melanotic matter taken from the different organs by Drs. J. Darrach and Levick, the masses in the kidney and pancreas were found to consist of cells and granules. The cells were filled with large granules and had large nuclei, with two nucleoli. The colouring matter from the lung was deposited in the sub-serous cellular tissue, and consisted solely of granules. This was much darker than that deposited in the kidney, liver and pancreas. Nitric acid added to the latter produced a yellow colour; with the former no change was effected. The deposit on the tissue of the pelvis of the kidney was of the same nature as that in the lung, nitric acid having no effect upon it.

It will be noticed that though the supra-renal capsule was so much affected, there was no discoloration of the exterior of the body.

1858, *Feb.* 3. *Annual Report on Meteorology and Epidemics.*—Dr. Wilson Jewell presented and read the following report:—

The year 1857 has been one of almost unexampled health. With the exception of scarlet fever, which prevailed to some considerable extent, during the first quarter, no fearful epidemic has desolated our dwellings. The usual endemics have been less aggravated and fatal in their character, while the march of disease generally has been tardy in its progress, having failed to return its accustomed complement of deaths.

This acknowledged preservation of the health of our city cannot be attributed to the adoption of any special legislation for the removal of those injurious agencies which owe their origin to large cities, and are ever active in lowering the natural standard of mortality.

That there are existing causes for this unusual health will be readily admitted. But whether they are to be sought for in some concealed alteration of the usual sanitary condition of our city, or have their origin in the meteorological and climatic elements surrounding us, which are beyond the control of the hygienist, is a problem of great interest, but one that we are not now called upon to decide, as its investigation is of sufficient importance to entitle it to a separate consideration.

Notwithstanding, however, our apparent immunity from the visitation of any violent epidemic, it is undeniable that there lurk in our midst numerous patent, as well as latent disturbing causes, from which it is manifest the annual harvest of death is made rich. This opinion is verified by the fact that no less than 2,412 deaths have been recorded, during the year, from causes which are recognized as removable, or amenable to the observance of the laws of hygiene—morbid agencies, that would not have a place or a name upon our professional escutcheon, had we approached even within sight of the highest aim of the science of hygiene, "to the ultimate line of physiology—to death without disease." (*Blumenbach.*)

Few cities in the United States are more favourably located or enjoy a greater share of health than Philadelphia; and yet the force of circumstances, as developed by our mortuary statistics, compels us to acknowledge this fact, that there do exist disturbing influences—secondary causes, producing the germs of disease, the removal of which are not only neglected by the authorities, but, more than this, they are positively uncared for, it being neither expedient nor politically profitable, as a municipal measure, to inquire into their whereabouts and hasten their removal.

It is, or at least it should be, a subject of regret with every intelligent physician and philanthropist, that "the slow, continuous, increasing inroads of diseases, less rapid and alarming, but as certain and fatal as they are insidious," should excite so little anxiety and attention in the community. "The outburst of the epidemic will lead to a spasmodic effort at cleanliness, but the spirit of vigilance, thus engendered, dies too often with the causes

which called it forth." (*Newman.*) The weekly bill of mortality, if read at all, is read with no apparent solicitude. It calls forth no inquiry. It is only when the deaths are in excess from any one disease that the attention is arrested, and even then only for a moment.

It can hardly seem possible, that for every day on an average, throughout the year, upwards of thirty of the inhabitants of our city should pass away to the grave, and yet "the mourners go about the streets" unheeded. Nor does it but seldom, if ever, become a matter for serious inquiry, how many of these could have been saved an untimely death, by the intervention of a system of preventive measures faithfully administered.

It cannot be too frequently repeated that the abuse, neglect, or the violation of the laws of health, are at all times fruitful sources for a lengthened catalogue of unnecessary and preventable diseases, as well as for a large share of the mortality of our city. This annual waste of life, as a sequence of neglecting the faithful observance of sanitary regulations, is alarming, while it is not correctly appreciated. Its continuance is a blot upon the philanthropy of the people; it impugns their intelligence; it mars their comforts and saddens their enjoyments of life, and as it should be the first duty of every government to preserve the health and lives of its citizens, the attention of the authorities should be frequently directed to the subject, until it becomes with them the "great question of the day," and until, through their investigations, the producing causes shall be corrected, and the evils we have referred to be removed.

It is to be regretted, in the absence of a registration law, that there are no data by which we can compare the deaths in our city population with those in rural districts of the State. It is, however, an established truth, and has attained an unenviable notoriety, that the proportion of deaths to population is not only greater in cities, but that the average duration of life in cities is much below that of a residence in the country.

According to the reports of the Registrar-General of England, and presented in a statement drawn up by Dr. Guy, the relative mortality to population between town and country, is equal to 1 in 15 in favour of a country life; that is, he shows the rate to be 1 in 52 in the country, and 1 in 37 in towns. Taking this calculation as our guide, and fixing the death rate in our city 1 in 45, the average for five years from 1850 to 1854 inclusive, we have been hurrying to the grave annually 15 per cent. of the deaths recorded in our mortuary tables from causes peculiar to cities, all of which may be classed with deaths from preventable diseases. An English writer (Lee) on the comparative rates of mortality, has ventured the opinion, "that diseases of the class termed preventable are not inherent in, essential or peculiar to places of dense population," and his reasons are, that surplus water and organic filth, unremoved by drainage, without reference to other considerations, will inevitably increase the rate of mortality. We can readily understand, therefore,

that in the midst of a crowded population, in confined and badly ventilated neighbourhoods, the poison evolved exerts a fourfold influence over that of an open and sparsely settled locality, and hence the increased amount and high rate of mortality in cities.

But it will be impossible, in our limited report, to present this subject in all its important bearings, as it involves questions appertaining to our physical, social, and moral interests, which cannot be too highly appreciated or too ardently investigated. Suffice it to say, that "if the losses from evident neglect in hygienic precautions in our cities could be accurately estimated, the statements would be astounding."[1] During the year under consideration (1857), in our own city, the deaths known in the classification approved by the American Medical Association as zymotic, embracing epidemic, endemic, and contagious diseases, and which are ascribed to removable causes, amounted to 2,412, or 23 per cent. of the mortality, and of this number, 2,018, equal to 83 per cent., were in children and youth. To calculate the amount of sickness, on which these deaths depended, according to Dr. L. Playfair's theory, of 28 cases for each death, will involve 47,536 instances of unnecessary sickness. Add to this fearful picture its unnumbered calamities, the broken down health, the ruinous expenditure, the loss of wealth, of business, of friends, and the social, mental, and moral sufferings that follow in the train of evils, and we present but a faint view of the privations experienced in every community, from an ignorance of the laws of health and life.

To the politeness of our friend, Professor James A. Kirkpatrick, of the Philadelphia High School, are we again indebted for the following abstract of his meteorological observations for the year. These observations are made with great accuracy for the Smithsonian Institution, and from the well known character of Prof. K. for investigations of this nature, they are entirely reliable.

The mean temperature of the year was 53.48°, which is higher by 1.56° than in 1856; but a very little less, say 0.19°, than for the last six years. The coldest day of the year was the 18th of January, the mean temperature being 1°; the minimum temperature, however, 5½° below zero, occurred on the morning of the 24th of the same month, and was the lowest degree observed for the last six years.

The warmest day was the 14th of August, when the mean temperature was 87°; the maximum, 94°, occurred on the same day.

The mean temperature of the month of March was nearly 1¾° lower than that of February; the anomaly occurring in the latter month, it being more than 7° warmer than the mean for six years, while March was but 1¼° colder than usual. The same departure from general laws manifested itself through all the meteorological phenomena of February. The barometer was nearly

[1] Rep. on Hygiene, Trans. Am. Med. Assoc., vol. ii. p. 534.

half an inch higher. The dew point was 18° higher. The quantity of rain was less than one inch, while the average amount for the same month for six years is 2.647 inches. Notwithstanding this deficiency of rain, the force of vapor and the relative humidity of the atmosphere were greater than the average; and the direction of the wind was 29° more southerly than usual for that month. Indeed, the direction of the wind for the whole year has been nearly as much S. of W. as it usually is N. of W., as will appear by an inspection of the table.

The mean daily oscillation of the thermometer was 14.9°, the greatest being 30° on the 6th of April, and the least 2° on the 20th of February. The mean daily range of the thermometer, being the comparison of the temperature of one day with that of the same hours of the preceding day, gives for the year a variation of 5½°, the greatest being in February, and the least in July.

The range of the barometer was 1.626 inch—from 29.012 on the 26th of October, to 30.638 on the 12th of February.

The amount of rain that fell during the year was 48.448 inches, nearly 15 inches more than in 1856, and 5 inches more than the average for the last six years. The greatest quantity of rain in any one month was 8.039 in August; and the least 0.921 in February. The number of days on which rain fell was 132; the greatest number in any one month was 18, in June, and the least 7, in February. Snow fell to the depth of about two feet during the year. The greatest snow storm was on the 18th and 19th of January, when it fell on an average ten inches deep, but was drifted in some places to the depth of 6 to 8 feet.

The Delaware River was closed with ice about the 22d of December, 1856, and was not open again for navigation until the 8th of February, 1857. The latest ice in the spring was formed on the 8th of April. The first in the fall was on the 15th of November, though there was a pretty smart frost in the neighbourhood of the city on the night of the 21st of October.

Abstract of Meteorological Observations made at Philadelphia, Pa, Lat. 39° 57′ 28″ *N., Long.* 75° 10′ 28″ *W. from Greenwich, for the year* 1857. By Prof. JAMES A. KIRKPATRICK.

1857.	Barometer Reduced to 32° F. (Height above high water 50 feet.)					Thermometer. (F.)						Dew-point, 2 P. M.				Force of vapour, 2 P. M.	Relative humidity, 2 P. M.	Rain and melted snow.	Winds. Monthly resultant; No. of times in 1000.
	Monthly mean.	Monthly maximum.	Monthly minimum.	Monthly range.	Mean daily range.	Monthly mean.	Monthly maximum.	Monthly minimum.	Monthly range.	Mean daily range.	Mean of daily oscillations.	Monthly mean.	Monthly maximum.	Monthly minimum.	Monthly range.				
	Inches.	Inches.	Inches.	Inches.	Inches.	°	°	°	°	°	°	°	°	°	°	Inches.	Hund'ths.	Inches.	
January . . .	29.862	30.500	29.225	1.275	.220	20.32	38	—5½	43⅛	7.7	10.3	15.35	35.1	—5.3	40.4	.097	67	2.989	N. 71° 3′ W., 454
February . . .	30.034	30.638	29.599	1.039	.180	39.94	68	9	59	9.2	15.0	36.48	61.9	7.2	54.7	.250	68	0.921	S. 78° 26′ W., 301
March	29.839	30.304	29.229	1.075	.200	38.23	63	9	54	6.4	15.0	28.64	48.0	10.9	37.1	.167	55	1.773	S. 81° 52′ W., 306
April	29.733	30.240	29.163	1.077	.188	45.44	64½	20	44½	6.0	15.8	34.49	50.3	12.7	37.6	.210	55	6.932	S. 84° 17′ W., 261
May	29.748	30.193	29.402	.791	.144	61.22	86½	42	44⅛	4.8	15.8	47.33	63.5	26.7	36.8	.343	51	6.043	S. 63° 26′ W., 210
June	29.663	29.894	29.182	.712	.094	71.21	88	50	38	4.2	14.4	59.31	70.4	43.8	26.6	.518	57	7.426	S. 72° 11′ W., 187
July	29.808	30.071	29.469	.602	.070	77.26	91	53	38	2.9	14.5	64.84	71.2	53.6	17.6	.621	57	3.373	South 190
August	29.811	30.040	29.539	.501	.115	75.26	94	60	34	3.2	15.3	63.24	74.3	54.7	19.6	.590	56	8.039	S. 63° 26′ W., 226
September . . .	29.936	30.244	29.630	.614	.109	69.17	87	44	43	4.6	17.5	55.34	71.2	34.6	36.6	.460	51	1.132	N. 82° 52′ W., 150
October	29 830	30.199	29.012	1.187	.161	56.19	77	35	42	4.3	15.0	46.43	66.3	21.6	44.7	.337	58	2 742	N. 28° 48′ W., 265
November . . .	29.883	30.473	29.117	1.356	.181	45.86	78	19	59	7.1	16.9	34.99	73.8	5.2	68.6	.240	53	1.575	S. 68° 30′ W., 310
December . . .	29.899	30.406	29.266	1.140	.205	41.03	64	19	45	5.7	13.4	31.19	52.2	13.2	39.0	.184	60	5.503	N. 58° 0′ W., 233
Annual means .	29.837	30.638	29.012	1.626	.156	53.48	94	—5½	99⅛	5.5	14.9	43.14	74.3	—5.3	79.6	.335	57	48.448	S. 86° 25′ W., 216
Winter	29.952	30.678	29.100	1.578	.208	30.32	68	—5⅛	73⅛	7.7	12.5	24.70	61.9	—5.3	67.2	.160	66	7.529	N. 81° 29′ W., 367
Spring	29.773	30.304	29.163	1.141	.177	48.30	86½	9	77½	5.7	15.5	36.82	63.5	10.9	52.6	.240	54	14.748	S. 77° 25′ W., 255
Summer	29.761	30.071	29.182	.889	.093	74.58	94	50	44	3.4	14.7	62.46	74.2	43.8	30.5	.576	57	18.838	S. 46° 58′ W., 172
Autumn	29.883	30.473	29.012	1.461	.150	57.07	87	19	68	5.3	16.5	45.59	73.8	5.2	68.6	.346	54	5.449	N. 75° 58′ W., 192
For six years . .	29.884	30.709	28.895	1.814	.153	53.67	100½	—5½	106	5.6	..	44.58	78.5	—5.9	84.4	.345	59	43.502	N. 75° 12′ W., 223

The whole number of deaths for the year (Table I.) in the consolidated city, embracing the entire county, from all sections of which returns are made to the health office, were 10,895. Compared with the deaths for 1856, as shown in our last report to the College, amounting to 12,334, there is a difference of 1,439, equal to 6.19 per cent. in favour of 1857.

Estimating our population to be 575,000, an increase less than 4 per cent. for the year, and which, by some statisticians, will be thought quite too low—the rate of mortality has been as one to every 52 of the entire population, and to every thousand, as one in 18½. These rates exceed the natural standard of mortality assumed by statisticians for cities, that is, 2 per cent., or as one death to every fifty of the inhabitants. It is well known, however, that the ratio of mortality is much greater in large cities.

The above estimate for 1857 is one of unusual occurrence, and marks an almost unexampled state of health during the year. For a series of years the calculation will present a less favourable result.

In the five years, from 1850 to 1854 inclusive, the average ratio was as one to every 45 of the population, or 22 in every thousand, which result will be found a more favourable rate for a series of late years than in any other city, with the exception of Charleston, S. C., where for eight years, up to 1849, the average of deaths to population was as 1 in every 52.

The following table will show the comparative mortality of four of our large Atlantic cities for 1857 :—

		1857.			
Cities.	Population.	Deaths.	Per ct. of deaths to pop.	To the pop. one in every	To every 1000 of the pop.
Boston . .	170,000	3,958	2.32	42	23
New York . .	720,000	23,370	3.24	41	32
Philadelphia .	575,000	10,895	1.89	52	18
Baltimore . .	235,000	5,120	2.17	45	21

This statistical index to the comparative health of the cities named, confirms what we have already said of the uncommon health of our city for the past year, and substantiates our assertions elsewhere, that in comparison with other large cities we are decidedly the healthiest.

In every analytical shape it reveals the fact of our superiority in this particular relation. Contrasted with New York, the disparity is too obvious to be misunderstood. The difference in the population of the two cities when compared with the variation in the deaths forms a striking feature in the calculation.

While the estimated population of New York city is greater by 145,000, or 11 per cent., than that of Philadelphia, the deaths in the former were more by 12,475, or 36 per cent., than those in our own city.

The death rate to population presents a like favourable comparison. While in New York it stood 1 in 41, Boston 42, and Baltimore 45; in Philadelphia it was 1 in 52, a gain of 1 in every 8 over the average proportion of the other cities.

The deaths for each quarter averaged 2,723; for each month 908; for every week 209; for each day 29½, and for every hour throughout the year 1⅕th.

A marked difference, however, exists in the rates of death for the four quarters. In the third it amounted to 3,269, equal to 18 per cent. over those for the fourth quarter, which stood 2,186. In the first quarter they were 3,042, exceeding those for the second by 11 per cent. The cause or causes for these variations in the different seasons will be found in the fact, independently of all general predisposing or exciting causes, either internal or external, that the deaths in the first and third quarters were materially enhanced by the prevalence of scarlet fever in the former, and cholera infantum in the latter.

The aggregate ages of those who died during the year reached to 221,327 years. This will make the average duration of life 20.31 years for each individual. In Boston, the average for 1855 was 19.88, but for the entire State of Massachusetts it was equivalent to 27.43 years. These calculations serve as approximate evidence towards the truth of a favourite theory, that the duration of life is shorter in cities than in country districts. They also aid in establishing the opinion advanced by statisticians that the duration of life in cities, instead of increasing, is on the decline. In our own city, for instance, from 1810 to 1820, the estimate fixed it at 26.25 years, and from 1840 to 1844 it was reduced to 22.01 years, and from that period to the present it has been annually lessening. A similar result will be found to apply to New York and Boston. In England, it is also affirmed that, in the application of the principle to the population of large towns, there is a decline of their vital energies, their powers of endurance being less, and as a consequence the average duration of life is diminished.

This early waste of life, as it applies to our own city and to other large cities in this country, will be found to depend in a great measure upon the alarming sacrifice of human life in infancy, a reprehensible immolation growing out of the distribution of evils in every community that are not only preventable, but at the same time are culpably neglected.

In this city, for the last five years, the mortality in children under five years of age will average 47 per cent. of all the deaths. In New York it is still more frightful. For fifty years the average deaths under five years have been equal to 50 per cent. of the mortality. And if for fifty years, how much more deplorable within the last few years, when in a single year, according to their own statement, "in 1853, the excess over one-half the entire number of interments of all ages in the city reached to thousands." From the City Inspectors' report for 1854, '55, and '56, it appears that 58.83 per cent. of the mortality was in infants under five years of age.

During the past year, in our own city, 48 per cent. of the deaths, or 1 in every 2 and a fractional part that died, were under 5 years. Nor would it be an exaggerated calculation, to so harrowing an extent have the causes for mortality in early infancy increased, if we should estimate that more than a moiety of those born in cities are hurried out of existence, perishing prematurely

before their tenth birthday, the victims of a common neglect of the laws of health.

"An unripe harvest for the scythe of death."

Of 10,000 living children born in England, only 8,461 are alive at the end of the year; and of 1,000, there remained alive at the end of ten years 534. Facts like these, a counterpart of which may be found to exist in the large cities of the United States, where, as it is well known, the duration of life is greater by 3½ per cent. than in those of Europe, make a forcible appeal to the sympathies as well as to the intelligence of every physician and philanthropist, and are arguments of the necessity for an improvement in the sanitary condition of our city. Blessed as we are with health, in comparison with some other cities, an examination of our mortuary record still fastens the conviction, of the unmistakable existence of pernicious causes for the early work of death, that are removable, and may be reached through the enforcement of a sound sanitary police. Having pointed to the inevitable necessity for such a reform, we might inquire, and it is pertinent to the subject, why have not these salutary measures been enforced? and where lies the fault? The intelligent and observing physician comes into daily contact with these evils; he analyzes them; he traces them to their various sources; he points them out to those who have the rule of the municipality; he teaches the doctrinal truth, that they are susceptible of amelioration, and in some instances of entire removal, by proper sanitary precautions that are within the control of human authority; but his voice is hushed, in the demand for legislation far inferior to that of health and life, exalted happiness and prosperity; and he mourns over the indifference with which his toilsome investigations and his wholesome and humane suggestions are received, or at the ridicule and contempt thrown upon his statements, and thus terminates too frequently his laudable efforts. These injurious influences not being alleviated are annually increasing, because the civil authorities, either from ignorance, or an unwillingness to consider sanitary legislation essential to the political interests of the State, close their eyes upon the adoption of those measures of sanitary reform, which would diffuse the blessings of health throughout the entire community.

A more correct estimate of the health of our city may, perhaps, be obtained by confining the calculations to deaths reported from actual disease. For this purpose, it will be required to exclude those recorded under the following heads:—

Casualties	118	Debility	378
Burns and scalds	37	Fracture	20
Concussion of brain	7	Malformation	10
Exposure	5	Old age	195
Drowned	134	Stillborn	557
Poison	2	Unknown	291
Strangulation	1	Wounds	1
Suffocation	9	Heat	1
Suicide	26	Exhaustion	6
Violence	8		
From the country	75	Total	1,881

Deducting this number from the total mortality (10,895), and we shall have left 9,014 deaths from certified diseases, showing that the mortality from accidental and other causes, besides disease, amounted to 17 per cent.

Taking the above total as the true standard, we have only 1 death in every 63 of the population, or 16 in every thousand.

Table II. enumerates the deaths occasioned by those diseases peculiar to the lungs and air-passages. They number 2,961, higher in proportion than those for 1856 by 2.42 per cent., and are equivalent to 28.13 per cent. of the mortality for the year, exclusive of stillborn.

The deaths from hooping-cough are appended to this table; they have been few in number, only 51, a decline of 26 since 1856. The deaths from inflammation of the lungs have increased 14 per cent. and congestion of the lungs 15 per cent. over those for the previous year, while inflammation of the bronchi have lessened 16 per cent., and croup 2 per cent.

This variation does not necessarily indicate less disease, but is rather an evidence that the spongy tissue of the lungs has been more liable to fatal attacks of inflammation than the lining membrane of the tracheal or bronchial passages.

Thirty-three deaths, however, are assigned to catarrh and nine to influenza; the former of these should have been with more propriety charged to bronchial inflammation. The latter may have been sporadic cases of influenza, and are, perhaps, deserving of a distinct notice.

While the ordinary inflammations of the air-passages, as coryza, catarrh, or bronchitis, have been unusually prevalent in a mild form during the last fall and first winter months, we have not been advised of the appearance of influenza in an epidemic shape; hence the deaths referred to may have been only the usual catarrhal inflammations in an aggravated form.

The deaths from croup amount to 256, or 8 per cent. of the mortality from affections of the respiratory organs, and represent a large proportion of the deaths from diseases in children between the ages of one and ten years, equal to 8.91 per cent.

Consumption of the lungs, inflammation, congestion and disease of the lungs make up 75 per cent. of the deaths from diseases of the lungs and respiratory passages.

In the table (III.) we have prepared in a separate form the annual mortality from consumption of the lungs, designating the sexes and showing the proportion of deaths for each decennial period.

The various points of interest in the character of this fatal scourge to the medical historian; its etiology, nature, pathology and treatment, but especially in all that refers to its mortality statistics from year to year in this locality, render it in our judgment deserving of a more particular notice.

No one disease on record in modern times and under ordinary circumstances,

sweeps off as many of the human family as pulmonary consumption. The deaths in this city alone, for the last thirty years, have reached the enormous sum of 24,734; and, according to the statistics of other large cities north of us on the Atlantic slope, we are more highly favoured than either of them, in point of locality, for consumptive patients; while, for nearly one-third of the present century, every day on an average has chronicled 2,258 victims for the grave from this fruitful source of death. And its insidious, though certain work, is still progressing.

During the last year, 1857, the deaths were 1,544, showing an increase of 1.40 per cent. over those for 1856, and reaching a higher point than those of any former year on record by 9.40 per cent.

More than half, or 52.14 per cent., of all the deaths from diseases of the lungs and respiratory passages were from consumption.

Towards the annual mortality from all causes it contributed 14.17 per cent., an increase of nearly 2 per cent. over 1856.

The ratio of deaths to the population was as 1 in every 372.40, and 1 in 2.68 to each thousand.

From every period of life, even within the first year of infancy up to old age, it claims its subjects. The highest mortality in any one decennial period, between 20 and 30, reached 458; the next highest, between 30 and 40, was 350. These rates correspond with the statistics of other cities, and with the observations of writers generally, as to the influence of certain periods of life upon the fatality of consumption.

The first five years of infantile life chronicles 108 deaths from this disease, and had we a more particular pathological system of certifying as to the causes of death, this number would in all probability be increased, from the numerous deaths in children that are now assigned to marasmus and debility.

December furnishes the highest number of deaths from consumption, viz., 172, and April the next highest, 165. The lowest number, 103, is assigned to November, and the next minority, 105, to May.

In our former annual statistics, the deaths in females exceeded those in males by a sensible percentage. In these, however, they are nearly equal, the males 768, the females 776, a difference of eight only in favour of the females.

Herewith we append a table of the statistics of consumption for the last six years, in continuation of Dr. Condie's table, calculated for a period of twenty-six years, and published in the summary of the *Transactions* of the College (N. S., vol. i. p. 261). We have constructed this table upon a similar basis; that is, making the calculations upon the absolute deaths from disease instead of the aggregate mortality.

The results of the computation by this method will not be found so favourable, during the past six years, for the decrease of consumption in our city, as the tables of Dr. Condie show for an earlier series of years. Nor will they present the same favourable estimates as if calculated upon the total of

deaths; which plan we have adopted elsewhere, and is the one we believe usually pursued by other statisticians in preparing their tables of mortality. The former system, however, furnishes the fairest indication of the truth, and as it is a subject of too much importance to be examined carelessly, and glossed over, we should approach it with strict impartiality in order to secure unbiased facts.

It will be seen that we have introduced several additional columns, one for the population of each year, another for the percentage of deaths from consumption to the annual aggregate mortality, as well as the proportionate number to the total of deaths, that the difference annually may be more readily compared.

Population.	Years.	Total of deaths.	Deaths from external causes, old age, still-born.	Absolute deaths from disease.	Deaths from consumption.	Per cent. of deaths from do. to absolute.	Proportion of deaths from do. to absolute.	Per cent. of deaths to aggregate mortality.	Proportion to aggregate mortality.
409,000	1852	10,155	1532	8,623	1182	13.70	1 in 7.29	11.63	1 in 8.58
415,000	1853	9,711	1615	8,096	1246	15.39	1 in 6.41	12.82	1 in 7.79
450,000	1854	11,815	1856	9,959	1378	13.85	1 in 7.22	11.66	1 in 8.50
525,000	1855	10,457	1895	8,562	1327	15.49	1 in 6.45	12.68	1 in 7.88
550,000	1856	12,334	2067	10,267	1501	14.61	1 in 6.83	12.16	1 in 8.21
575,000	1857	10,895	1881	9,014	1544	17.12	1 in 5.83	14.17	1 in 7.05
Increase. 166,000									
Per cent. 10.869									
Average		10,892	1807	9,086	1363	15 02	1 in 6.67	12.52	1 in 8
					increase				
Per cent.				1.864	13.27				

By the act of consolidation, our population, as seen by the table, was greatly increased in 1854. An extensive suburban territory, embracing the entire county, with its several districts, was engrafted upon our city; from this increase the mortuary returns were also gathered and computed. This addition of population, amounting to more than 25,000, would very naturally enlarge the mortality record. We find that during the period of six years, embraced in the table, there was an increase of 166,000 inhabitants, equal to 10.869 per cent.; but the total of deaths from all causes was not materially increased, while the deaths from consumption increased 13.27 per cent.

In 1852, the deaths from consumption to population stood 1 in every 337.56, whereas in 1857 they were 1 in 372.40, making a gain of 1 in every 34.84 in favour of the decrease of consumption in its ratio to population, notwithstanding in 1857 they stood nearly two per cent. higher than in 1856. But we cannot say as much for their ratio to deaths from disease. The average percentage of deaths from consumption to deaths from absolute disease, from 1852 to '57 inclusive, was 15.02 per cent., or 1 in every 6.67; the deaths averaging 9,086. Now, for the six years preceding this period, or from 1846 to 1851 inclusive, according to Dr. Condie's table, while the deaths

from absolute disease averaged 7,254, the percentage of deaths from consumption was 12.60, or 1 in every 8.03 deaths.

Thus it will be perceived that the deaths from consumption have actually increased, in the last six years, 2.42 per cent. over those for the six years preceding. We cannot, therefore, congratulate ourselves that the deaths from consumption are undergoing any favourable change; and, indeed, the results of our comparative table would seem, in some measure, to verify the prediction of the President of this College, at its meeting in January, 1851, in reference to the falling off of the mortality from consumption in 1850. At that period, cod-liver oil was extensively used, and he remarked that its acknowledged effect might only postpone the fatal result, and "consequently the diminution in the deaths from consumption the past year, 1850, be made up in an increased mortality from this source, exhibited in the mortuary tables of some later period."[1]

The deaths in 1857 have been 9.40 per cent. higher than in any former year on record.

In the table (IV.) will be found the deaths from those diseases belonging to the functions and organs of the nervous system. These number 1,792, thus contributing 17.33 per cent. of the yearly mortality. A large proportion of the deaths will be found in children; convulsions and inflammation, congestion and dropsy of the brain—diseases peculiar to infantile life—contribute 1,236, equivalent to 68.97 per cent. of the whole number. To convulsions alone is charged a heavy percentage. This is one of those diseases prominently destructive of life in infancy; the deaths amounted to 556, of which 522 were in children. The first and third quarters of the year bear the heaviest proportions, viz., 141 in the first and 188 in the third. Among the latter, were many, in all probability, that owed their origin to cholera infantum, and, with a correct system of registration, would have been found under that name.

We are of opinion that the term convulsions, as found in our mortuary tables, is by far too frequently made the scape-goat for the sins of other agents in the destruction of infantile life. The term is quite too vague to be relied upon as an idiopathic disease. Very many of the deaths in the record assigned to convulsions we believe to have been the result of dentition, cholera infantum, indigestion, worms, or some pre-existing lesion, the eclampsia constituting a symptom only of the effect of irritation, transmitted to the brain or spinal marrow, instead of an isolated attack of either of those organs; charging to the effect, that which rightfully belonged to the cause.

The diseases of the organs of nutrition furnished 2,236 deaths to make up the total mortality for the year, as will be found in table (V.). This gives 21.62 per cent. of the deaths, exclusive of stillborn.

[1] Transac. College Phys, vol. i., N. S., p. 258.

The deaths from cholera infantum, marasmus, inflammation of the stomach and bowels, dropsy, diarrhœa, and dysentery, amount to 1,895, or 84 per cent. of the whole number.

Cholera infantum, a disease peculiar to large cities, and confined chiefly to the three summer months, or more properly to the third quarter of the year, contributed 534 deaths, less by 139, or 11.51 per cent., than the average deaths from the same cause for the three preceding years. Last year they stood 6 per cent. to the entire mortality; this year but 5 per cent. On the other hand, marasmus, which in many instances, as registered, is the sequelæ of other diseases, has the credit of giving 506 deaths, which is 155, or 17.03 per cent. more than the average for the seven previous years.

The deaths in this table, from those diseases belonging to the zymotic class, the causes for which are looked upon by the sanitarian as preventable, are equal to 38.63 per cent

We have again occasion to allude to the marked disproportion of the deaths from dropsy to those in former years. They here rate 239, even higher than the previous year (1856), and more than double those for 1854 and '5 combined. The prevalence of scarlet fever during the first quarter of the year may, to some extent, explain the cause, as a large proportion was in children, and the heaviest mortality is represented in the first quarter.

The large mortality from this class of diseases during the third quarter of the year, will not escape notice. They reached 1,198, or more by 160 than the three remaining quarters united, exceeding 53 per cent. of the total. This high rate of mortality will be found to have prevailed for a series of years, must be attributed to the influence of the season upon health, is charged principally to the several bowel complaints, fall heavily upon the younger portion of the population, and is due to those diseases included in the class "zymotic."

The deaths from diseases of the utero-genital organs will be found in table (VI.). They amount to 126; falling below those of the previous year 12.19 per cent. Seventy-seven of these deaths, or 61 per cent., were occasioned by disease of the uterus; those from other causes were trifling.

Puerperal fever rates 49; less than in 1856 by nearly 17 per cent. The highest proportion of this mortality, viz., 33, occurred in the first quarter, or during the coldest period of the year. In the last quarter, when the season was mild, there is but one death recorded.

The mortality from fevers claims a separate table (VII.), in which we have registered the deaths for the year, amounting to 1,048, or 10.13 per cent. of the entire mortality, exclusive of stillborn. This estimate is 2 per cent. less than that for 1856, when the deaths to the entire mortality were 12 per cent.

These returns have been increased nearly two-thirds by the deaths from scarlet fever, which amounted to 704, or 66.22 per cent.

The opening year was commemorated by the continued prevalence of this fatal enemy to children, scarlet fever, which had raged so fearfully during 1856. It seemed unexhausted, and persisted in its depredations upon our infant population until about the close of April, when, having gone through all its phases, it gave evidence of abatement, and by the close of the second quarter, June, its epidemic influence had almost entirely disappeared. From that period, however, until the close of the year, cases were still occurring, many of which were fatal, and to such a degree, as to increase the rate of mortality in children, as shown by the record.

During the last two years of its existence in the city, it has swept off 1,696 of our infant population, which was equivalent to 12.93 per cent. of all the deaths under 15 years, exclusive of stillborn. This mortality, and the lengthened period of the existence of the epidemic, justifies us in the conclusion that it has never been exceeded in this city for violence, extent, or duration by any former epidemic of scarlet fever. Relying upon the estimate of Dr. Tweedie, that 6 per cent. is the medium of deaths to cases, there could not have been less than 28,226 cases of the disease within our city during the two years of its prevalence.

The deaths from typhoid and typhus fevers have conjointly fallen off 13.23 per cent. since 1856. Nor have these fevers prevailed in as severe forms as in previous years. Assuming a milder type, they have yielded more readily to treatment. There are two deaths recorded from enteric fever, two from continued and nine from nervous fever, all of which should have been classed with typhoid fever according to the nomenclature of Dr. Wood.

Measles contributed 66 deaths for the year, as seen in table (VIII.); less by one-half than the previous year. On a former occasion we alluded to the alternate elevation and depression of the deaths from measles from year to year since 1850. Upon further examination, we find a somewhat similar oscillation in alternate years since 1840. In only two years of this period, embracing 18 years, did they rise above 100. In 1841, they were 119, and in 1856, 141, the maximum mortality. The minimum was 1, in 1843.

The highest rate of mortality for 1857 was, in the first or winter quarter, 53, when it fell suddenly to 11 in the second quarter; and in the third quarter it fell still lower, to 2. The fourth quarter registered none.

The winter and spring furnished the greatest amount of mortality, and this rate agrees with all other statistics.

In the next group, table (IX.), will be found the mortality from those causes which have proved most fatal during the year. Ninety being fixed as the minimum number.

The fluctuations in this table compared with the deaths in 1856, in the second column, show a favourable result for the year. Of the thirty-three causes named, 21 have fallen below those for 1856 in numbers, while the remainder, 11, have increased.

Consumption of the lungs, the great destroyer of life, supplies the maximum mortality in the list, and stands 37 per cent. above the next highest, scarlet fever, which rates 704. Stillborn 557, and convulsions 556, occupy the third position in the scale, followed closely by cholera infantum 534, while marasmus 506, and inflammation of the lungs 504, conclude the list of causes for death above five hundred.

The deaths from "diseases of the heart," a very general term, embracing both functional and organic derangement, present a considerable increase over those of 1856, or any former year, equal in this case when compared with the previous table to 10 per cent. The deaths from "drowned" also exhibit an increase of 11 per cent.

Table X. furnishes a numerical analysis of the deaths for the year. Exhibits the monthly mortality and the stillborn, with the sexes in both cases; also the number of deaths at fifteen distinct periods of life with the percentages calculated for each to the total of deaths, exclusive of stillborn.

Of the entire mortality there were 5,873 males, and 5,022 females, bearing the proportion of 53.91 per cent. of the former to 46.09 per cent. of the latter, an excess of 7.82 per cent. of the males. In the preceding year, 1856, the excess was only 3.11 per cent.

The premature and stillborn deaths amounted to 557, or 5.11 per cent. of the mortality, which is a more favourable estimate than the average for the seven previous years, which gives 5.21 per cent. The highest mortality of premature and stillborn children was, in September, 65. The lowest, 36, was in May. The excess of stillborn children was in males, and was greater than in any former year, amounting to 123 or 22.08 per cent.

From this table we also learn that the deaths under one year, exclusive of stillborn, were 2,590, or 25.05 per cent., that up to five years they amounted to 48.05 per cent. Between five and fifteen only 6.54 per cent.; from fifteen to forty 22.13 per cent., from which decennial period there is a gradual diminution of the rates.

By this analysis it will be observed that the mortality was highest in children under one year of age, amounting to more than 50 per cent. of all the deaths within the first half decade of life, or five years. In adult life that decade between 20 and 30 years shows the greatest percentage of deaths of any other, amounting to 9.72 per cent.

The heaviest monthly mortality occurred in July, 1,162; of which 52.66 per cent. was under five years; the next highest was in August, 1,146, of which, also, 58.17 per cent. was under five, a higher infant mortality by 5.51 per cent. than in July. January gave 1,140 deaths, and of these 49.64 per

cent. were under five years, an unusually large percentage of infant mortality occasioned by the deaths from scarlet fever, which amounted to 18.34 per cent. of the monthly mortality. June contributed the lowest rate of deaths, 635, and November the next, 651.

Viewing the returns of mortality with special reference to the different seasons of the year, they indicate that the two summer months, July and August, and the second winter month, December, with the spring month, April, have been most fatal to human life. The most favourable to life have been May, June, October, and November.

It has been so frequently remarked that the value of vital statistics depends upon their accuracy, that the opinion has ripened into a sanitary aphorism. The radical defects of our present imperfect system, and the scanty resources for procuring correct information, debar us the full advantage of this wholesome truth.

In the absence of a registration act, which would apply to the entire State, we never can have the vital statistics of Pennsylvania. Even the fragmentary statistics of births and deaths, which apply exclusively to our own city, are so imperfectly furnished, that they are, at the best, only an approximation to accuracy, not to mention the very meagre character of the tabular form required to be registered.

Every one interested in the collection and preservation of vital statistics, as well as those who can appreciate their value, must regret that we are not living under the guidance of a more complete and enlightened code of laws, both registration and sanitary, applicable to the prevention of disease and the prolongation of life, or that those we already possess are not more zealously administered.

As far as the general health law of 1818 applies to our city we have no serious complaint to offer. It contains ample provision for sanitary protection from both foreign and local sources of disease, if the conditions were strictly carried out. But it is to the indefinite manner in which this law is enforced that in common with others we make exception. This laxity is either the result of ignorance, or an erroneous view of the responsible duties imposed upon those to whom is confided the sanitary protection of the citizens, as well as the improvement of the public health.

A change in this department of our city government is as necessary as a registration act for the State. Both are imperiously demanded. The former as the application of recent events has made singularly clear to the public mind, needs revision. Like that of a neighbouring city, it has become so tarnished, so perverted, that it is "a by-word and reproach among all classes of citizens." The alone cause for this degeneracy is the too frequent practice of mingling science and humanity with politics, and of conferring responsible places "merely as the rewards of party service to men no way qualified by habits of

observation and study for the positions they occupy." (*Newman's Reports San. Police of Cities*, p. 44.)

The importance of the latter, a general registration act, we have on former occasions commended, and shall continue to make it one of the cherished objects of our public offerings, until we secure for it the fostering care of the State. In our estimation it possesses claims for the benefit of legislative favour that far outweigh those numerous interests that are ever receiving the consideration and patronage of government. Its value to the prosperity of the State cannot be computed. As a source of happiness to the people it knows no equal; and as a measure for the improvement of health and the prolongation of life, the experience of other countries guarantees its value.

The mission of the intelligent physician is not confined alone to the cure of disease. The preservation of health, and the improvement of our race, lay claim to a large share of his professional labours; hence we regard it as a principle incontrovertible, that the true aim of the medical man, his highest, noblest, most exalted, and truly philanthropic vocation, is to avert those evils, both sanitary and moral, physical and mental, within reach of science, that are destructive to health and dangerous to life; and in this extended field, where the morbid seeds of sickness are sown broadcast, claim his victory over disease, and his triumph over death.

Entertaining these views, we would, in conclusion, most earnestly invite the attention of the College to another trial of their faith, and in an associated effort with the State Medical Society, endeavour to secure the enactment of a well-defined and generally approved law, for a State registration of births, marriages, and deaths.

TABLE I.—*Mortality for the year* 1857, *Collated from*

DISEASES.	FIRST QUARTER, COMMENCING JANUARY 3, 1857.									SECOND COMMENCING					
	Jan.		Feb.		March.		Adults.	Minors.	Total.	April.		May.		June.	
	M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F.
Abscess	..	3	..	1	1	2	7	..	7	5	..	2	2	2	2
" liver	..	..	..	..	1	..	..	1	1	..	..	..	..	..	..
Albuminuria	..	..	1	..	..	..	1	..	1	2	..	1	..	1	..
Anæmia	2	..	1	1	1	..	2	3	5	..	..	..	..	..	..
Anasarca	..	..	..	..	1	..	1	..	1	..	..	..	..	..	..
Aneurism	1	..	..	..	..	..	..	1	1	..	..	..	..	2	..
" of the aorta	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..
Angina pectoris	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..
Apoplexy	6	3	5	6	7	5	29	3	32	10	8	5	1	5	4
Asphyxia	4	1	..	3	1	..	1	8	9	1	..	..	1	1	..
Asthma	1	3	3	..	2	2	7	4	11	..	3	..	..	1	..
Cachexia	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Cancer and scirrhus	1	6	3	5	5	9	27	2	29	1	7	2	3	3	6
" of the stomach and bowels	2	..	2	1	..	..	4	1	5	1	..	..	..	..	..
" " liver	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..
" " uterus	..	1	..	2	..	..	3	..	3	..	..	..	..	..	..
Cancrum oris	3	2	..	..	..	3	..	8	8	..	1	..	..	..	..
Caries	1	..	..	..	..	1	1	1	2	..	..	..	..	1	..
" of the spine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Carbuncle	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Catarrh	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Casualties	4	1	6	2	6	2	16	5	21	5	..	5	2	6	1
Burns and scalds	2	2	2	1	4	3	9	5	14	5	..	3	..	..	1
Drowned	..	..	..	..	3	..	2	1	3	6	..	11	..	23	4
Exposure	1	..	..	1	1	1	3	1	4	..	..	..	..	..	..
Fracture	..	..	1	..	1	..	2	..	2	..	..	..	..	..	..
" of leg	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" pelvis	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..
" skull	2	..	1	1	..	..	2	2	4	..	..	..	..	..	..
" spine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Neglect	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poisoning	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Strangulation	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Suicide	1	..	1	1	..	1	4	..	4	3	1	3	2	..	..
Suffocation	..	..	1	1	2	..	..	4	4	..	1	..	..	..	3
Violence	2	..	1	..	1	..	4	..	4	2	..	..	..	..	1
Cholera asphyxia	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..
" infantum	1	..	1	..	..	..	..	2	2	..	1	..	1	3	5
" morbus	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Chorea	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Chlorosis	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..
Cirrhosis	..	..	..	..	1	..	1	..	1	1	..	..	..	..	..
Childbed	..	..	..	1	..	1	2	..	2	..	..	..	..	..	..
Colic	..	1	..	..	2	..	2	1	3	..	1	..	1	..	..
Coma	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..
Concussion of the brain	2	..	2	..	..	..	3	1	4	1	..	..	..	2	..
Congestion	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..
" of the brain	13	9	9	9	14	5	25	34	59	13	4	7	3	11	6
" " liver	..	1	1	..	1	..	2	1	3	..	..	..	..	..	..
" " lungs	2	4	4	6	6	7	8	21	29	10	8	5	3	1	2
" " stomach and bowels	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..
Consumption of bowels	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" lungs	59	68	63	66	76	75	327	80	407	89	76	50	55	40	49
Convulsions	30	23	29	20	19	20	6	135	141	34	24	17	17	14	15
" puerperal	..	1	1	..	..	..	1	..	1	..	..	..	..	..	..
Cramp	1	1	1	1	..	..	1	3	4	..	1	..	..	..	..
Croup	20	22	17	12	14	4	1	88	89	14	14	12	7	5	13
Coryza	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Coup de soleil	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Coxalgia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cyanosis	4	1	1	..	1	1	..	8	8	..	4	..	1	1	1
Debility	18	16	18	12	12	15	47	44	91	16	10	11	9	19	10
Diabetes	2	1	1	..	..	..	3	1	4	..	1	..	..	..	1
Diarrhœa	2	4	..	2	3	1	9	3	12	6	2	3	..	3	4
Disease of the bladder	..	..	..	..	1	..	1	..	1	..	..	..	..	..	..
" brain	9	6	6	3	4	5	8	25	33	9	1	..	..	3	2
" chest	..	..	2	..	..	2	2	2	4	1	..	..	1	..	..
" ear	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
" heart	10	7	10	5	6	11	29	20	49	12	5	7	5	8	10
" hip	..	..	1	..	..	..	..	1	1	..	..	..	1	..	..
" kidneys	1	1	1	..	..	..	2	1	3	1	1	..	..	..	..
" mouth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Returns made to the Health Office. By WILSON JEWELL, M. D.

QUARTER, March 28, 1857.			THIRD QUARTER, Commencing June 27, 1857.									FOURTH QUARTER, Commencing October 3, 1857.									Total for the year.
			July.		Aug.		Sept.					Oct.		Nov.		Dec.					
Adults.	Minors.	Total.	M.	F.	M.	F.	M.	F.	Adults.	Minors.	Total.	M.	F.	M.	F.	M.	F.	Adults.	Minors.	Total.	
9	4	13	1	1	1	4	..	2	6	3	9	..	1	..	1	1	3	4	2	6	35
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
4	..	4	1	..	..	1	..	..	2	..	2	..	..	..	..	..	..	..	..	..	7
..	..	..	2	1	1	1	..	..	3	2	5	..	..	..	..	..	..	..	..	..	10
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
26	7	33	6	2	5	2	9	2	26	..	26	2	5	2	3	6	6	23	1	24	115
..	3	3	2	..	..	..	..	1	..	3	3	..	..	..	..	..	..	..	..	..	15
3	1	4	1	1	..	1	2	2	3	4	7	3	3	1	..	4	..	11	..	11	33
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
20	2	22	3	6	3	5	3	11	26	5	31	2	8	..	6	4	6	25	1	26	108
1	..	1	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	7
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	4
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
..	..	..	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	..	..	3	4	4	1	10	11	1	32	33	33
16	3	19	11	3	3	1	13	4	25	10	35	9	7	4	5	15	3	24	19	43	118
3	6	9	1	2	..	2	..	..	..	5	5	1	1	..	..	2	5	2	7	9	37
24	20	44	23	2	19	2	20	4	43	27	70	3	..	7	1	6	..	15	2	17	134
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
..	..	..	..	..	..	..	4	..	3	1	4	..	1	2	..	2	..	3	2	5	11
..	..	..	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
..	..	..	1	..	1	..	..	..	1	1	2	..	..	..	..	..	..	..	..	..	6
..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1	1
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1	1
2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
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9	..	9	4	..	1	..	3	2	10	..	10	..	..	2	1	..	..	3	..	3	26
..	4	4	..	1	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	9
3	..	3	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	8
2	..	2	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	3
..	10	10	91	79	136	119	51	32	..	508	508	6	3	4	1	..	..	..	14	14	534
1	..	1	1	2	3	2	..	1	3	6	9	..	..	..	..	..	..	..	..	..	10
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
1	..	1	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	3
..	..	..	..	2	..	..	..	1	3	..	3	..	1	..	1	..	..	2	..	2	7
1	1	2	..	..	..	1	..	..	1	..	1	1	..	..	..	..	..	1	..	1	7
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
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..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
14	30	44	8	10	15	8	10	9	27	33	60	12	6	4	4	6	6	15	23	38	201
..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..	2	1	3	6
10	19	29	4	1	3	2	10	9	14	15	29	2	4	9	7	13	10	22	23	45	132
2	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	3
..	..	..	..	..	..	2	1	1	2	2	4	..	..	..	..	1	..	..	1	1	5
302	57	359	72	68	56	61	70	59	294	92	386	65	52	46	57	82	90	326	66	392	1544
8	113	121	38	39	32	25	30	24	12	176	188	16	9	16	17	28	20	8	98	106	556
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
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3	62	65	15	3	3	1	7	2	..	31	31	11	8	15	11	16	10	..	71	71	256
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
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..	..	..	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1
..	7	7	2	1	4	..	1	..	..	8	8	1	..	2	2	4	2	..	11	11	34
36	39	75	21	14	26	12	20	22	37	78	115	17	13	17	11	19	20	47	50	97	378
2	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1	7
9	9	18	14	8	14	13	11	6	9	57	66	4	5	3	5	4	2	15	8	23	119
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
5	10	15	6	6	5	5	9	6	10	27	37	2	3	1	1	5	3	3	12	15	101
..	2	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1	7
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
32	15	47	6	14	11	6	5	8	39	11	50	12	10	11	15	14	14	58	18	76	222
1	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1	3
1	1	2	1	..	..	1	..	..	1	1	2	..	..	1	..	..	..	..	1	1	8
..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	1

TABLE I.—*Mortality*

DISEASES.	FIRST QUARTER, Commencing January 3, 1857.									SECOND Commencing					
	Jan.		Feb.		March.		Adults.	Minors.	Total.	April.		May.		June.	
	M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F.
Disease of the leg	..	1	..	..	..	..	..	1	1	..	..	..	..	..	..
" liver	..	1	..	1	..	1	1	2	3	2	..	1	..	2	1
" lungs	1	5	2	5	1	4	10	8	18	6	2	2	2	2	..
" ovaries	..	..	..	1	..	1	2	..	2	..	..	..	..	..	..
" skin	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" spine	1	1	1	..	..	..	..	3	3	1	..	..	..	..	..
" stomach and bowels	1	..	1	1	2	..	2	3	5	2	1	..	3	..	..
" throat	..	..	1	..	..	..	..	1	1	1	..	..	..	..	..
" uterus	..	2	..	..	..	..	2	..	2	..	..	..	..	..	..
Dropsy	16	15	18	10	8	9	35	41	76	12	10	11	9	5	10
" abdominal	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..
" of the brain	12	10	14	8	10	4	1	57	58	9	4	7	5	9	6
" " chest	5	..	2	2	4	1	5	9	14	6	..	5	3	1	4
" " heart	..	..	..	1	1	..	1	1	2	..	1	3	..	1	2
" " liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dysentery	2	3	3	1	3	3	8	7	15	3	1	3	5	4	2
Dyspepsia	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Eczema	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Effusion on the brain	3	2	5	5	9	6	6	24	30	5	3	2	1	2	..
" chest	..	..	1	..	..	..	..	1	1	2	..	..	..	..	..
" lungs	..	..	..	..	..	2	2	..	2	..	..	..	..	..	..
" spinal marrow	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Enlargement of the heart	..	..	1	2	4	3	6	4	10	4	2	..	1	..	1
Emphysema	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Empyema	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Epilepsy	2	3	2	2	2	4	7	8	15	1	..	1	..	..	..
Eruptions	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	10	5	3	6	8	3	22	13	35	6	9	4	2	2	5
Exhaustion	2	..	1	..	..	1	1	3	4	2	..	..	..	..	..
Fever	..	..	..	..	1	2	3	..	3	..	..	..	..	..	..
" bilious	1	1	..	..	..	..	2	..	2	3	..	..	..	..	..
" brain	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" congestive	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
" continued	..	..	1	..	..	1	1	1	2	..	..	..	..	..	..
" enteric	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..
" gastric	..	..	2	..	..	..	..	2	2	..	..	..	..	..	1
" hectic or inflammatory	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..
" intermittent	..	..	2	..	1	..	2	1	3	..	2	..	..	..	..
" nervous	1	1	..	1	..	..	2	1	3	..	..	..	1	..	..
" puerperal	..	10	..	13	..	10	27	6	33	..	1	..	4	..	7
" remittent	..	2	2	1	1	1	4	3	7	1	3	..	1	..	..
" scarlet	113	96	59	67	58	32	7	418	425	39	43	19	16	14	22
" typhoid	9	6	14	3	3	7	25	17	42	6	9	8	9	3	1
" typhus	3	..	1	1	3	..	3	5	8	1	1	1	1	..	1
Fungus hæmatodes	1	..	..	..	..	1	2	..	2	..	..	..	..	..	..
Gangrene	1	..	..	..	..	1	1	1	2	2	..	2	1	..	1
" of lungs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Gout	1	..	..	..	1	..	2	..	2	..	..	..	2	..	..
" of the heart	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hemorrhage	1	..	2	6	2	2	9	4	13	2	2	..	..	..	..
" from the lungs	4	2	..	1	..	1	5	3	8	2	1	2	..	2	..
" " stomach	2	..	..	..	..	..	1	1	2	..	..	..	..	..	..
" " uterus	..	1	..	..	..	1	2	..	2	..	2	..	..	..	..
Hernia	1	..	..	..	..	..	1	..	1	1	1	..	..	..	1
" umbilical	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..
Hooping-cough	2	2	4	2	3	1	..	14	14	..	4	1	2	1	2
Icterus	1	..	..	..	..	3	2	2	4	1	2	2	..	..	..
Inanition	3	7	4	2	2	5	5	18	23	5	1	5	3	3	2
Infanticide	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Inflammation	1	..	1	2	2	1	3	4	7	1	1	..	..	..	1
" of the abdomen	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
" " bladder	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
" " brain	10	10	14	12	8	17	4	67	71	15	8	16	7	3	13
" " bronchi	25	9	6	8	14	10	61	11	72	17	13	7	8	4	4
" " chest	..	..	1	1	..	1	1	2	3	1	..	2	2	..	..
" " heart	1	2	..	1	..	..	4	..	4	2	..	1	..	..	..
" " hip	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
" " kidneys	1	..	1	..	1	..	2	1	3	..	1	2	..	..	..
" " larynx	2	2	..	1	2	3	8	2	10	2	1	..	..	..	..
" " liver	1	1	1	1	..	..	3	1	4	..	2	3	2	3	1
" " lungs	36	34	34	28	24	19	56	119	175	34	43	25	15	11	7
" " peritoneum	1	5	..	5	..	12	20	3	23	1	9	2	1	2	4

for 1857—Continued.

QUARTER, March 28, 1857.			THIRD QUARTER, Commencing June 27, 1857.									FOURTH QUARTER, Commencing October 3, 1857.									Total for the year.
			July.		Aug.		Sept.					Oct.		Nov.		Dec.					
Adults.	Minors.	Total.	M.	F.	M.	F.	M.	F.	Adults.	Minors.	Total.	M.	F.	M.	F.	M.	F.	Adults.	Minors.	Total.	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
3	3	6	1	2	1	1	2	1	6	2	8	4	2	3	1	6	..	14	2	16	33
8	6	14	2	1	1	1	..	..	4	1	5	1	4	3	2	4	2	12	4	16	53
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	1
1	..	1	1	..	1	1	1	..	..	4	4	1	..	..	..	..	..	1	..	1	9
3	3	6	..	..	..	..	1	2	1	2	3	..	..	..	..	1	1	2	..	2	16
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
34	23	57	14	7	9	7	4	4	36	9	45	11	8	13	8	13	8	35	26	61	239
2	..	2	..	..	..	2	1	1	4	..	4	..	..	..	..	..	..	..	..	..	6
3	37	40	21	8	10	15	6	6	4	62	66	2	2	2	1	1	1	..	9	9	173
9	10	19	3	2	..	2	2	2	6	5	11	..	..	..	1	2	1	1	3	4	48
4	3	7	1	..	3	5	1	1	7	4	11	..	..	..	1	..	..	1	..	1	21
..	..	..	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1
9	9	18	19	21	35	22	28	19	52	92	144	5	5	3	3	1	4	10	11	21	198
1	..	1	..	..	..	..	1	..	..	1	1	..	..	..	..	..	..	..	..	..	2
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
3	10	13	5	5	5	11	6	7	5	34	39	..	..	2	1	5	2	3	7	10	92
1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	2	4
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
7	1	8	1	1	..	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..	20
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
1	1	2	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	18
..	..	..	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1
13	15	28	2	5	..	1	6	1	7	8	15	2	2	3	2	6	2	8	9	17	95
2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
2	1	3	1	..	4	..	1	1	6	1	7	7	4	..	1	..	1	8	5	13	25
..	..	..	..	1	..	..	..	..	..	1	1	1	..	..	..	..	..	1	..	1	2
..	1	1	..	..	..	1	2	..	1	2	3	..	..	1	..	..	..	1	..	1	5
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2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
..	1	1	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	4
1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
1	..	1	..	..	..	..	..	..	..	..	..	..	3	..	..	2	..	4	1	5	9
10	2	12	..	..	..	3	..	..	3	..	3	..	..	..	..	..	1	1	..	1	49
2	3	5	..	..	..	..	3	1	..	4	4	3	..	1	2	1	..	5	2	7	23
1	152	153	18	20	2	7	6	7	1	59	60	14	4	9	6	14	19	3	63	66	704
18	18	36	6	8	6	8	8	9	29	16	45	12	8	5	8	8	11	36	16	52	175
4	1	5	1	..	3	..	4	3	8	3	11	..	1	1	..	8	4	10	4	14	38
..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	3
4	2	6	..	..	1	..	..	..	..	1	1	..	..	1	..	..	..	1	..	1	10
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
2	..	2	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	5
..	..	..	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1
3	1	4	..	3	1	3	2	1	7	3	10	4	1	3	5	3	..	13	3	16	43
6	1	7	..	..	..	..	2	..	1	1	2	..	1	..	..	..	..	1	..	1	18
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
1	1	2	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	5
3	..	3	..	2	1	..	..	..	2	1	3	..	..	1	..	..	..	1	..	1	8
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
..	10	10	2	..	5	3	1	2	..	13	13	4	6	2	1	1	..	..	14	14	51
1	4	5	..	..	..	2	..	..	2	..	2	..	..	..	..	..	..	..	..	..	11
2	17	19	7	..	4	1	5	5	4	18	22	3	1	7	2	1	3	3	14	17	81
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
..	3	3	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	11
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
1	..	1	1	1	1	..	..	..	3	..	3	..	..	..	..	4	1	3	2	5	9
14	48	62	21	16	18	18	16	16	21	84	105	18	15	11	7	9	8	24	44	68	306
14	39	53	4	5	3	5	3	..	9	11	20	7	7	4	7	6	3	10	24	34	179
1	4	5	1	2	2	..	..	1	..	6	6	1	..	..	..	..	1	..	2	2	16
1	2	3	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	8
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
2	1	3	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	7
..	3	3	..	..	..	..	..	1	..	1	1	..	..	..	..	..	..	..	..	..	14
6	5	11	1	..	3	1	2	3	8	2	10	..	..	..	..	..	..	..	..	..	25
52	83	135	18	15	12	7	6	7	24	41	65	12	14	32	35	22	14	56	73	129	504
13	6	19	2	4	..	4	..	..	6	4	10	1	..	..	1	1	1	4	..	4	56

TABLE I.—*Mortality*

DISEASES.	FIRST QUARTER, Commencing January 3, 1857.									SECOND Commencing					
	Jan.		Feb.		March.		Adults.	Minors.	Total.	April.		May.		June.	
	M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F.
Inflammation of the pleura	..	..	..	..	..	1	..	1	1	5	4	3	3	..	2
" " spine	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
" " stomach and bowels	11	10	14	12	12	11	32	38	70	16	11	4	10	15	9
" " throat	..	1	..	1	..	..	..	2	2	1	..	..	..	..	1
" " tonsils	1	..	..	4	..	..	2	3	5	..	..	..	1	..	1
" " trachea	3	..	1	..	..	..	..	4	4	2	..	2	1	..	..
" " uterus	..	..	..	2	..	3	5	..	5	..	1	..	..	..	1
Influenza	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..
Intemperance	2	1	..	..	..	1	4	..	4	2	..	1	3	..	1
Intussusception	..	..	2	..	..	1	1	2	3	..	..	..	..	1	..
Malformation	1	..	..	..	..	1	..	2	2	1	..	1	1	..	2
" of spine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mania	..	1	1	1	..	..	3	..	3	1	1	..	1	1	..
Mania à potu	3	..	4	..	1	..	8	..	8	12	2	1	1	2	1
Marasmus	11	18	18	13	12	16	3	85	88	19	15	20	13	8	11
Measles	13	11	14	8	4	3	..	53	53	2	3	3	2	1	..
Mortification	..	..	..	..	..	1	1	..	1	1	1	2	..	..	2
Obstruction of the bowels	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Old age	2	11	5	8	9	10	45	..	45	4	8	6	12	6	4
Ossification of heart	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ozena maligna	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Palsy	3	10	3	2	2	1	20	1	21	6	3	4	3	7	3
Perforation of the bowels	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..
Phlegmasia dolens	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..
Purpura	..	1	..	..	..	..	..	1	1	..	..	1	..	..	..
Pyæmia	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..
Rickets	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Rheumatism	2	..	1	2	..	1	3	3	6	1	..	1	..	..	2
Rupture of bloodvessels	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
" urethra	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..
Scrofula	6	1	6	4	1	5	1	22	23	2	1	3	2	1	1
Scurvy	..	..	..	..	..	..	..	..	..	1	..	1	1	1	..
Smallpox	7	5	5	4	4	7	8	24	32	3	9	5	3	4	2
Softening of the brain	..	1	1	..	1	..	2	1	3	2	1	2	1	1	..
" " heart	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..
Sore mouth	..	..	..	1	..	..	..	1	1	..	1	..	..	..	..
" throat	..	..	..	1	1	..	..	2	2	..	1	..	1	2	3
Stillborn	25	17	24	23	22	18	..	129	129	32	17	23	13	20	20
Suppression of urine	..	..	1	..	..	..	1	..	1	..	1	..	..	..	..
Syphilis	..	..	1	..	..	..	..	1	1	..	1	..	..	..	..
Tabes mesenterica	2	1	3	1	..	..	2	5	7	..	2	..	..	..	2
Teething	..	..	4	1	2	..	..	7	7	2	1	..	..	..	..
Tetanus	..	..	..	..	1	..	1	..	1	2	1	..	..	1	1
Trismus	..	..	..	1	1	..	1	1	2	..	..	..	..	..	..
Tumour	1	..	..	2	..	..	2	1	3	..	1	1	..	..	1
" on neck	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
" ovarian	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Ulceration	..	..	..	..	..	1	..	1	1	..	1	..	..	..	..
" of leg	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..
" scalp	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" stomach and bowels	..	1	2	..	..	..	1	2	3	..	..	..	..	1	..
" throat	1	..	1	..	..	..	..	2	2	..	..	..	..	..	..
" uterus	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..
Unknown	21	15	11	10	16	12	43	42	85	25	15	8	14	11	5
Varioloid	2	1	..	..	1	..	..	4	4	..	..	3	..	..	..
Wounds	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Worms	..	..	..	1	..	..	1	1	..	..	..	..	1	..	..
Totals	605	534	526	469	465	443	1185	1857	3042	602	468	380	313	315	320
From the almshouse	53		51		49		..	..	153	72		53		45	
From the country	6		3		5		..	..	14	7		4		8	
People of colour	45		48		46		..	..	139	56		43		48	

for 1857—Continued.

QUARTER, March 28, 1857.			THIRD QUARTER, Commencing June 27, 1857.									FOURTH QUARTER, Commencing October 3, 1857.									Total for the year.
			July.		Aug.		Sept.					Oct.		Nov.		Dec.					
Adults.	Minors.	Total.	M.	F.	M.	F.	M.	F.	Adults.	Minors.	Total.	M.	F.	M.	F.	M.	F.	Adults.	Minors.	Total.	
14	3	17	..	..	1	..	2	1	4	..	4	..	1	3	..	1	..	4	1	5	27
1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
36	29	65	16	21	13	17	14	17	44	54	98	12	14	6	10	10	14	38	28	66	299
..	2	2	..	1	..	..	..	..	..	1	1	..	..	1	..	..	..	..	1	1	6
..	2	2	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	8
..	5	5	..	1	..	..	..	..	..	1	1	1	..	..	..	..	..	..	1	1	11
2	..	2	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	8
1	1	2	..	..	..	..	4	3	..	7	7	..	..	..	..	..	..	..	..	..	9
7	..	7	..	1	..	1	3	2	7	..	7	..	..	..	..	..	..	..	..	..	18
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
..	5	5	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	2	2	9
..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	1
4	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7
19	..	19	8	2	5	1	1	..	17	..	17	8	3	2	1	4	..	18	..	18	62
9	77	86	26	30	48	41	43	43	3	228	231	15	15	15	14	24	18	4	97	101	506
..	11	11	..	..	..	2	..	..	..	2	2	..	..	..	..	..	..	..	..	..	66
4	2	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7
..	1	1	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	2
40	..	40	5	14	11	17	3	11	61	..	61	7	12	7	9	6	8	49	..	49	195
..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	1
..	..	..	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1
26	..	26	8	6	2	5	5	3	26	3	29	2	1	5	5	3	..	16	..	16	92
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	2
2	2	4	3	..	1	..	..	..	3	1	4	..	..	..	..	..	1	1	..	1	15
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
2	8	10	2	2	1	2	2	4	4	9	13	..	..	1	..	4	..	1	4	5	51
4	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
4	22	26	4	1	..	..	..	..	..	5	5	..	..	..	..	1	1	..	2	2	65
3	4	7	..	1	..	..	..	..	1	..	1	1	1	..	..	1	..	3	..	3	14
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
..	1	1	..	..	..	2	..	..	..	2	2	..	..	..	..	..	..	..	..	..	4
..	7	7	..	1	..	..	..	..	..	1	1	..	..	2	..	..	1	..	3	3	13
..	125	125	37	26	23	16	42	23	..	167	167	30	11	25	14	37	19	..	136	136	557
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	2	1	3	5
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	3
..	4	4	3	6	1	3	6	5	..	24	24	1	2	1	3	2	..	2	7	9	44
..	3	3	1	1	2	2	..	..	..	6	6	..	..	..	..	1	..	..	1	1	17
3	2	5	1	..	1	..	..	..	..	2	2	1	..	1	..	..	1	2	1	3	11
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
2	1	3	..	1	..	..	..	1	2	..	2	..	..	..	..	..	2	2	..	2	10
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
1	..	1	..	..	..	2	..	..	2	..	2	..	1	3	..	..	..	1	3	4	8
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
1	..	1	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1
1	..	1	..	..	1	1	..	..	1	1	2	..	..	..	..	..	..	..	..	..	6
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
49	29	78	19	14	15	10	4	9	35	36	71	12	11	13	..	18	3	40	17	57	291
..	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7
..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	1
..	1	1	..	..	1	..	1	..	2	2	..	..	..	..	..	..	..	..	..	..	4
1069	1329	2398	636	516	610	536	529	432	1100	2169	3269	380	308	346	305	478	369	1073	1113	2186	10895
..	..	170	57		76		44		..	..	177	45		35		56		..	..	136	..
..	..	19	8		8		11		..	..	27	9		4		2		..	..	15	..
..	..	147	51		62		37		..	..	150	29		34		40		..	..	103	..

TABLE I.—*Mortality for* 1857—Continued.

	FIRST QUARTER, Commencing January 3, 1857.						SECOND QUARTER, Commencing March 28, 1857.					
	Jan.	Feb.	March.	Adults.	Minors.	Totals.	April.	May.	June.	Adults.	Minors.	Totals.
Under 1 year	263	265	203	..	..	731	266	166	142	..	..	574
From 1 to 2 years	113	111	107	..	..	331	109	57	43	..	..	209
" 2 to 5 "	231	142	128	..	..	501	125	84	72	..	..	281
" 5 to 10 "	82	70	52	..	..	204	70	42	37	..	..	149
" 10 to 15 "	21	23	20	..	..	64	21	10	14	..	..	45
" 15 to 20 "	26	31	25	..	..	82	23	22	26	..	..	71
" 20 to 30 "	93	95	92	..	..	280	104	67	54	..	..	225
" 30 to 40 "	87	71	71	..	..	229	102	55	73	..	..	230
" 40 to 50 "	59	61	54	..	..	174	85	51	45	..	..	181
" 50 to 60 "	55	48	53	..	..	156	53	48	47	..	..	148
" 60 to 70 "	37	39	41	..	..	117	44	36	42	..	..	122
" 70 to 80 "	43	25	40	..	..	108	45	30	22	..	..	97
" 80 to 90 "	25	11	16	..	..	52	22	18	16	..	..	56
" 90 to 100 "	3	3	6	..	..	12	..	7	1	..	..	8
" 100 to 110 "	1	..	..	..	..	1	1	..	1	..	..	2
Total of monthly mortality	1139	995	908	..	..	..	1070	693	635	..	..	..
Total males for the quarter	..	..	..	..	..	1595	..	..	..	..	..	1298
" females "	..	..	..	..	..	1447	..	..	..	..	..	1100
" adults "	..	..	..	1129	..	..	..	..	..	1069	..	..
" minors "	..	..	..	..	1913	..	..	..	..	..	1329	..
Total for the quarter	..	..	..	..	..	3042	..	..	..	..	..	2398

	THIRD QUARTER, Commencing June 27, 1857.						FOURTH QUARTER, Commencing October 3, 1857.					
	July.	Aug.	Sept.	Adults.	Minors.	Totals.	Oct.	Nov.	Dec.	Adults.	Minors.	Totals.
Under 1 year	449	479	365	..	..	1293	156	177	216	..	..	549
From 1 to 2 years	137	173	161	..	..	471	90	84	108	..	..	282
" 2 to 5 "	89	63	25	..	..	177	41	31	55	..	..	127
" 5 to 10 "	45	29	15	..	..	89	19	11	21	..	..	51
" 10 to 15 "	20	12	16	..	..	48	6	9	12	..	..	27
" 15 to 20 "	36	26	29	..	..	91	24	24	29	..	..	77
" 20 to 30 "	100	88	86	..	..	274	75	62	89	..	..	226
" 30 to 40 "	96	80	81	..	..	257	82	76	89	..	..	247
" 40 to 50 "	61	57	64	..	..	182	66	56	80	..	..	203
" 50 to 60 "	49	39	49	..	..	137	50	44	54	..	..	147
" 60 to 70 "	39	45	39	..	..	123	30	41	43	..	..	114
" 70 to 80 "	22	31	18	..	..	71	27	18	37	..	..	82
" 80 to 90 "	16	19	7	..	..	42	19	13	10	..	..	42
" 90 to 100 "	3	5	6	..	..	14	3	4	3	..	..	10
" 100 to 110 "	..	..	..	..	..	..	..	1	1	..	..	2
Total of monthly mortality	1162	1146	961	..	..	..	688	651	847	..	..	..
Total males for the quarter	..	..	..	..	..	1776	..	..	..	..	..	1204
" females "	..	..	..	..	..	1493	..	..	..	..	..	982
" adults "	..	..	..	1100	..	..	..	..	..	1073	..	..
" minors "	..	..	..	..	2169	..	..	..	..	..	1113	..
Total for the quarter	..	..	..	..	..	3269	..	..	..	..	..	2186

TABLE II.—*Mortality from Diseases of the Lungs and Air-passages.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1857.			
	1855.	1856.	1857.	1st.	2d.	3d.	4th.
Abscess, pulmonary	9	1	...	...	...	...	...
Angina pectoris	5	5	1	1	...	...	...
Apnœa	...	1	...	...	...	...	...
Asphyxia	28	28	15	9	3	3	...
Asthma	19	21	33	11	4	7	11
Catarrh	...	...	33	...	...	...	33
Collapse of lungs	...	1	...	...	...	...	...
Congestion of the lungs	82	97	132	29	29	29	45
Consumption, laryngeal	1	1	...	...	...	...	...
" of the lungs	1327	1501	1544	407	359	386	392
Croup	265	268	256	89	65	31	71
Disease of the chest	10	6	7	4	2	...	1
" lungs	33	37	53	18	14	5	16
Dropsy of the chest	48	61	48	14	19	11	4
Effusion on the chest	3	7	3	1	2	...	...
" lungs	7	4	4	2	...	...	2
Emphysema	...	2	1	...	1	...	...
Empyema	...	2	1	...	1	...	...
Gangrene of the lungs	1	...	1	...	1	...	...
Hemorrhage from the lungs	21	28	18	8	7	2	1
Influenza	4	2	9	...	2	7	...
Inflammation of the bronchi	233	250	179	72	53	20	34
" " chest	10	7	16	3	5	6	2
" " larynx	13	34	14	10	3	1	...
" " lungs	442	379	504	175	135	65	129
" " pleura	24	16	27	1	17	4	5
" " trachea	1	9	11	4	5	1	1
Ulceration of larynx	...	2	...	...	...	...	...
Totals	2586	2770	2910	858	727	578	747
Hooping-cough	90	77	51	14	10	13	14
Totals	2676	2847	2961	872	737	591	761
Total mortality, exclusive of stillborn	9869	11722	10338				
Per cent. from diseases of the lungs	26.20	22.77	28.13				
Per cent. from consumption of the lungs	13.45	12.80					

TABLE III.—*Deaths from Consumption of the Lungs, during each Month in the year* 1857, *at fifteen distinct periods of life, with the Sexes designated for each month.*

AGES.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Under 1 year . . .	1	6	2	4	5	...	8	3	3	...	...	2	34
From 1 to 2 years . .	2	6	3	5	2	...	3	5	8	2	2	4	42
" 2 to 5 " . .	3	2	5	3	6	3	5	...	...	3	...	2	32
" 5 to 10 " . .	1	...	3	...	1	...	2	2	4	...	2	...	15
" 10 to 15 " . .	...	4	3	1	1	1	1	2	5	2	3	2	25
" 15 to 20 " . .	11	11	17	4	10	11	14	10	17	9	16	17	147
" 20 to 30 " . .	43	42	40	52	29	27	47	37	33	40	23	45	458
" 30 to 40 " . .	25	29	35	44	23	19	29	30	27	29	21	39	350
" 40 to 50 " . .	19	15	17	25	13	10	16	12	14	12	17	33	203
" 50 to 60 " . .	14	7	12	16	7	14	8	11	13	9	11	15	137
" 60 to 70 " . .	6	5	10	6	3	3	5	3	4	8	7	10	70
" 70 to 80 " . .	1	2	3	4	3	1	2	2	1	3	1	3	26
" 80 to 90 " . .	1	...	1	1	2	...	...	...	...	...	...	...	5
" 90 to 100 " . .	...	...	...	...	...	...	...	...	...	...	...	...	...
" 100 to 110 " . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Male	59	63	76	89	50	40	72	56	70	65	46	82	768
Female	68	66	75	76	55	49	68	61	59	52	57	90	776
Monthly totals . . .	127	129	151	165	105	89	140	117	129	117	103	172	1544
Quarterly totals . . .	407			359			386			392			1544

TABLE IV.—*Mortality from Diseases of the Nervous System.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1857.			
	1855.	1856.	1857.	1st.	2d.	3d.	4th.
Abscess of the brain	2	2	...	...	...	...	...
Apoplexy	110	123	115	32	33	26	24
Chorea	...	2	1	...	1	...	...
Catalepsy	...	1	...	...	...	...	...
Coma	2	2	1	1	...	...	...
Compression of the brain	3	8	...	...	...	...	...
Concussion of the brain	1	...	7	4	3	...	...
Congestion of the brain	175	177	201	59	44	60	38
Convulsions	626	603	556	141	121	188	106
Coup de soleil	...	2	6	...	...	6	...
Cramp	...	11	10	4	1	5	...
Disease of the brain	97	107	100	33	15	37	15
Dropsy of the brain	254	242	173	58	40	66	9
Effusion of the brain	72	94	92	30	13	39	10
Epilepsy	25	24	18	15	2	1	...
Hysteria	...	3	...	...	...	...	...
Inflammation of the brain	288	329	306	71	62	105	68
" " tympanum	1	...	...	...	...	...	...
Irritation of brain and spinal marrow	1	...	...	...	...	...	...
Mania or insanity	17	12	7	3	4	...	...
Mania à potu	25	43	62	8	19	17	18
Neuralgia	1	1	...	...	...	...	...
Palsy	106	104	92	21	26	29	16
Softening of the brain	20	40	14	3	7	1	3
" " spinal marrow	...	2	...	...	...	...	...
Teething	16	29	17	7	3	6	1
Tetanus	17	13	11	1	5	2	3
Trismus	8	2	2	2	...	...	...
Totals	1866	1976	1791	493	399	588	311
Puerperal convulsions	15	2	1	1	...	...	...
" mania	2	...	...	...	...	...	...
Totals	1883	1978	1792	494	399	588	311
Total mortality, exclusive of stillborn	9869	11722	10338				
Per cent. of total mortality	18.90	16.87	17.33				

TABLE V.—*Mortality from Diseases of some Organs of Nutrition.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1857.			
	1855.	1856.	1857.	1st.	2d.	3d.	4th.
Abscess	17	40	35	7	13	9	6
" abdominal	1	...	...	...	...	...	...
" of the liver	2	1	1	1	...	...	...
Cancer of the stomach and bowels	18	4	7	5	1	1	...
Cholera	33	16	3	...	2	1	...
" infantum	566	722	534	2	10	508	14
" morbus	29	35	10	...	1	9	...
Cirrhosis of the liver	7	6	3	1	1	1	...
Colic	8	17	7	3	2	1	1
Constipation	2	3	...	...	...	...	...
Consumption of the bowels	4	3	5	...	...	4	1
Diarrhœa	177	149	119	12	18	66	23
Disease of the liver	25	27	41	7	6	9	19
" stomach and bowels	20	27	17	5	6	3	3
Dropsy	110	213	239	76	57	45	61
" abdominal	31	8	6	...	2	4	...
Dysentery	266	301	198	15	18	144	21
Dyspepsia	1	...	2	...	1	1	...
Gout	4	7	5	2	2	1	...
Icterus	27	21	11	4	5	2	...
Ileus	4	1	...	...	...	...	...
Inflammation of the liver	38	39	25	4	11	10	...
" " peritoneum	54	68	56	23	19	10	4
" " stomach and bowels	187	184	299	70	65	98	66
Intussusception	7	6	4	3	1	...	...
Marasmus	436	484	506	88	86	231	101
Obstruction of the bowels	13	9	2	...	1	1	...
Scrofula	54	61	51	23	10	13	5
Tabes mesenterica	28	36	44	7	4	24	9
Tuberculosis	6	...	...	...	...	...	...
Ulceration of the stomach and bowels	21	15	6	3	1	2	...
Totals	2196	2503	2236	361	343	1198	334
Total mortality, exclusive of stillborn	9869	11722	10338				
Per cent. of total mortality	22.35	21.35	21.62				

TABLE VI.—*Mortality from Diseases of the Utero-Genital Organs.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1857.			
	1855.	1856.	1857.	1st.	2d.	3d.	4th.
Albuminuria	6	9	7	1	4	2	...
Amenorrhœa	...	2	...	...	...	...	...
Cancer of mammæ	7	2	...	...	...	...	...
" uterus	18	5	4	3	...	...	1
Childbed	2	2	7	2	...	3	2
Chlorosis	1	2	1	1	...	...	...
Convulsions, puerperal	15	2	1	1	...	...	...
Diabetes	...	...	7	4	2	...	1
Disease of the bladder	1	1	1	1	...	...	...
" kidneys	3	16	8	3	2	2	1
" ovaries	3	1	2	2	...	...	...
" prostate gland	1	1	...	...	...	...	...
" uterus	3	5	2	2	...	...	...
Dropsy, ovarian	1	1	...	...	...	...	...
Fever, puerperal	41	69	49	33	12	3	1
Hemorrhage from uterus	13	7	5	2	2	1	...
Inflammation of the bladder	5	8	9	...	1	3	5
" " kidneys	4	7	7	3	3	1	...
" " prostate gland	1	...	...	...	...	...	...
" " uterus	8	15	8	5	2	1	...
Mania, puerperal	2	...	...	...	...	...	...
Rupture of the bladder	1	...	...	...	...	...	...
" urethra	1	...	1	1	...	...	...
" uterus	3	...	...	...	...	...	...
Stone in bladder	1	...	...	...	...	...	...
Suppression of urine	...	...	3	...	...	...	3
Syphilis	4	5	2	1	1	...	...
Tumour, ovarian	2	1	1	...	1	...	...
Ulceration of the uterus	1	...	1	1	...	...	...
Totals	148	161	126	66	30	16	14

TABLE VII.—*Mortality from Fevers.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1857.			
	1855.	1856.	1857.	1st.	2d.	3d.	4th.
Fever	16	10	3	3	...	...	...
" bilious	36	24	25	2	3	7	13
" cerebral	2	...	2	...	...	1	1
" congestive	7	3	5	...	1	3	1
" continued	1	...	2	2	...	...	...
" enteric	...	...	2	...	2	...	...
" gastric	4	2	4	2	1	1	...
" hectic	4	2	2	...	2	...	...
" intermittent	7	14	5	3	2	...	...
" malignant	2	...	...	...	...	...	...
" nervous	2	7	9	3	1	...	5
" pernicious	2	...	...	...	...	...	...
" puerperal	41	69	49	33	12	3	1
" remittent	48	22	23	7	5	4	7
" scarlet	163	992	704	425	153	60	66
" typhoid	231	229	175	42	36	45	52
" typhus	59	49	38	8	5	11	14
" " icterodes	...	5	...	...	...	...	...
" yellow	3	...	...	...	...	...	...
Totals	628	1428	1048	530	223	135	160
Total mortality, exclusive of stillborn	9869	11722	10338				
Per cent. of total mortality	6.30	12.18	10.13				

TABLE VIII.—*Mortality from Measles.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1857.			
	1855.	1856.	1857.	1st.	2d.	3d.	4th.
Measles	24	141	66	53	11	2	...

TABLE IX.—*Causes assigned for Death where the number is 90 and upward.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1857.			
	1855.	1856.	1857.	1st.	2d.	3d.	4th.
Apoplexy	110	123	115	32	33	26	24
Casualties	102	158	118	21	19	35	43
Cholera infantum	566	722	534	2	10	508	14
Consumption of the lungs	1327	1501	1544	407	359	386	392
Congestion of the brain	175	177	201	59	44	60	38
" " lungs	...	97	132	29	29	29	45
Convulsions	626	603	556	141	121	188	106
Croup	265	268	256	89	65	31	71
Debility	393	430	378	91	75	115	97
Diarrhœa	177	149	119	12	18	66	23
Disease of the brain	97	107	100	33	15	37	15
" heart	170	179	222	49	47	50	76
Dropsy	136	213	239	76	57	45	61
" of the brain	254	242	173	58	40	66	9
Dysentery	266	301	198	15	18	144	21
Effusion on the brain	...	94	92	30	13	39	10
Erysipelas	...	100	95	35	28	15	17
Fever, scarlet	163	992	704	425	153	60	66
" typhoid	231	229	175	42	36	45	52
Hooping-cough	90	...	...	...	...	...	...
Inanition	104	114	...	...	...	...	...
Inflammation of the brain	288	329	306	71	62	105	68
" " bronchi	233	250	179	72	53	20	34
" " lungs	442	379	504	175	135	65	129
" " stomach and bowels	187	184	299	70	65	98	66
Marasmus	436	484	506	88	86	231	101
Measles	...	141	...	...	...	...	...
Old age	172	172	195	45	40	61	49
Palsy	106	104	92	21	26	29	16
Smallpox	281	390	...	...	...	...	...
Stillborn	588	612	557	129	125	167	136
Unknown	220	257	291	85	78	71	57
Drowned	106	105	134	3	44	70	17

TABLE X.—*Deaths, with the Sexes, for each Month in the Year, and the Number at Sixteen Distinct Periods of Life, with the Percentages to Total Mortality, Exclusive of the Stillborn—also the Stillborn Children for each Month, and their Sex.*

MONTHS.	Males.	Females.	STILLBORN.			Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
			M.	F.	Total.																
January . . .	605	534	25	17	42	221	113	232	82	21	26	93	87	59	55	37	43	25	3	1	1140
February . .	525	470	24	23	47	218	111	142	70	23	31	95	71	61	48	39	25	11	3	...	995
March . . .	465	443	22	18	40	163	106	128	52	20	25	92	71	54	53	41	40	16	6	...	907
April . . .	602	468	32	17	49	217	109	125	70	21	23	104	102	85	53	44	45	22	...	1	1070
May . . .	380	313	23	13	36	130	57	84	42	10	22	67	55	51	48	36	30	18	7	...	693
June . . .	316	319	20	20	40	102	43	72	37	14	26	54	73	46	47	41	22	16	1	1	635
July . . .	637	525	37	26	63	386	137	89	45	20	36	100	96	61	49	39	22	16	3	...	1162
August . . .	610	536	23	16	39	440	173	63	29	12	26	88	80	57	39	45	31	19	5	...	1146
September . .	529	432	42	23	65	300	161	25	15	16	29	86	81	64	49	39	18	7	6	...	961
October . . .	380	308	30	11	41	115	90	41	19	6	24	75	82	66	50	30	27	19	3	...	688
November . .	346	305	25	14	39	138	84	31	11	9	24	62	76	56	44	41	18	13	4	1	651
December . .	478	369	37	19	56	160	108	55	21	12	29	89	89	80	54	43	37	10	3	1	847
Totals . . .	5873	5022	340	217	557	2590	1292	1087	493	184	321	1005	963	740	589	475	358	192	44	5	10895
Percentages to totals	53.91	46.09	3.12	1.99	5.11	25.05	12.49	10.51	4.77	1.77	3.10	9.72	9.31	7.15	5.69	4.59	3.46	1.85	0.42	.0004	

SUMMARY OF THE TRANSACTIONS

OF THE

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

FROM MARCH 3, TO MAY 5, 1858, INCLUSIVE.

1858, *March 3d.* *Gangrena Oris.*—Dr. CORSE read the following note of a case of gangrena oris, and exhibited the patient in a convalescent condition. A little mulatto girl, about 9 or 10 years of age, was, without any known exciting cause, taken with inflammation in the left cheek, which gave but little suffering to her, and no uneasiness to the parents. The inside of the cheek had at one point the appearance of what is usually termed, among the non-professional, a canker sore. It was permitted to run on for some days, perhaps as many as eight or ten (the precise time not being remembered), when the cheek began to swell, and presented a reddish appearance externally.

About this time, a small sore spot attracted her attention in the right cheek, very similar to the one which first appeared in the left, and near about the same point, opposite the first molar tooth. The parents now began to be uneasy, and sent for a homœopathist. On examining the case, he ordered her the lowest diet, and placed her under a course of treatment internally, assuring them it was but a small matter, and easily cured. This treatment not having the promised effect, a poultice of some ordinary kind, probably flaxseed, or bread and milk, was locally applied. The child grew worse rapidly, and an irritative fever, which had set up early, became a prominent symptom; the patient got no rest, and delirium now began to manifest itself. These symptoms went on increasing, the family became dissatisfied, and a consultation was held with one of the same class of practitioners. No benefit having been obtained, a second consultation with two homœopathists, and at last a third consultation with three, were attended with a like result. They continued the treatment of low diet, with granules, etc., and poultices to the cheeks. She grew constantly worse, and the parents determined to get a regular physician to see the child, and sent for me. I found the patient sitting up in bed, moaning, with a pulse of 140 to 160 per minute, a poultice to each cheek, and the room filled with a most intolerable fetor.

On removing the poultices, I found both cheeks in a gangrenous state; in some places there was the red line of demarcation drawn, at others the disease was still spreading.

On learning the previous diet, I immediately ordered a few stewed oysters

to be given, and a teaspoonful of brandy in a wineglass of milk, to be followed by beef tea. The bowels being costive, I ordered a gentle laxative.

In two hours I returned, and having found the pulse 135 to 145 and stronger, I began to remove the gangrenous portions by dissection. This proceeding was, of course, astonishing to the family, but having given up all hopes of saving the child, they were desirous to have anything done which would benefit. After removing the dead fragments, as far as prudence would permit, I applied solid argent. nitras. to the whole gangrenous surface, where the disease was extending.

The red surfaces, where the slough had separated, were then dressed with cerate, and a pledget of lint saturated with dilute chlorinated soda, was placed in each excavation.

Next morning I learned that the patient had had several tranquil naps, but the destruction was not yet done. The right cheek, which was last taken, was the worst; the inflammation had extended down below the lower jaw, and up to the right eyelid, and the right eye was nearly closed. I made another dissection of the dead tissues from each cheek; the whole rows of teeth above and below were exposed to view, and part of the right malar bone also; the parotid ducts were pouring out their contents externally on each side. By repeated dissections, and vigorous application of the argent. nit., the progress of the disease was at last stopped. My difficulties were somewhat increased by the springing of the facial arteries, which took place during a violent fit of crying, while I was applying the argent. nit.; the blood welled out strongly at first, but was stopped by pressure and styptics.

Having succeeded in changing the gangrenous inflammation into a healthy one, I had only a large sore, and a greatly debilitated condition to treat; these, after a prolonged treatment of tonics and good diet, terminated the case in recovery; with large cicatrices, and some deformity from loss of parts, but with perfect cheeks and a very good mouth.

Abscess contained in an Aneurismal Sac.—Dr. Wood stated that, during the last winter, a case had occurred to him which he thought of sufficient interest to be communicated to the college. A middle aged man entered the Pennsylvania Hospital, with symptoms which indicated phthisis; namely, cough, purulent expectoration, progressive emaciation, frequent pulse, night sweats, &c. No decided evidences, however, of a cavity could be detected. There was slight dulness on percussion beneath the inner extremity of the left clavicle; and on both sides a strong bronchial sound could be heard in respiration. Dr. Wood was under the impression that subcrepitant rales were audible here and there over the chest; but, as he reported the case from memory, he could not be certain on that point. He had no doubt of the existence of tubercles; but there was one peculiarity about the case which distinguished it from others of this kind. The bronchial sound above referred to gave the idea that it came from a particular point of the trachea; being

heard about equally on both sides, much increased when the patient drew in his breath forcibly, and sounding very much as the inspiration often sounds in health, when the patient is told to breathe strongly, and contracts the glottis in doing so. The same sound, too, could be heard in some degree, without the chest, upon forcible inspiration. There was not dulness sufficient beneath the clavicle to justify the supposition that there was any extensive consolidation of the lung at the apex. The inference was obvious that the trachea was narrowed at a particular part, either by constriction or pressure; and the idea of aneurism of course occurred to him; but there was not the slightest murmur, no unnatural pulsation over the part suspected, nor in the carotids or subclavians, no thrill in the pulse; and no other evidence whatever of aneurism, except the bronchial or rather tracheal sound above referred to, and the slight dulness on percussion. The patient was put upon cod-liver oil, and the usual treatment for phthisis; and seemed somewhat to improve; but, suddenly, the resident physician was sent for, with the information that he was much worse; and on reaching the ward found him dead.

An examination was made by Dr. Humphreys, the resident physician, aided by Dr. Wells; and the results were reported to Dr. Wood. The parts too concerned in the disease were exhibited to him, though he did not see them in situ. The immediate cause of death was evidently a sudden discharge of pus into the trachea. This was seen filling the larger air-passages, and flowed from the mouth, when the position of the body was changed. It was found to have entered the trachea anteriorly, a little above the bifurcation, by two small nearly contiguous orifices. These communicated with a cavity, which was found collapsed, and the walls of which were continuous with those of an aneurismal tumour, lying between the trachea and the arch of the aorta. They adhered to the outer surface of the trachea, which thus formed, for a small space, a portion of the walls of the cavity, and in this space existed the openings through which the pus had escaped. The bottom of the abscess appeared to be formed by an old very firm coagulum, which adhered all round to the walls of the cavity, so as completely to close it in that direction. The firm coagulum filled almost entirely that portion of the aneurismal sac which had not been occupied by the pus, and presented itself like a plug at the opening in the aorta, which was circular and somewhat less than an inch in diameter. The plug did not in this place adhere completely to the walls of the sac, but allowed a little blood to enter by its side. The entrance, however, and exit of the blood must have been very much impeded; and it is probable that the little which had entered remained quiescent in the movement of the circulation. Hence the absence of any pulsation or murmur, and the want of the aneurismal thrill in the pulse. It appeared to Dr. Wood that the portion of the sac still penetrable might in a little more time have been completely filled with coagulum, and ultimately obliterated; and, had the pus been discharged without suffocation, the part constituting the abscess might also have gradually lessened, and in the end disappeared.

But there was another affection, which, even in the event above referred to, would in all probability have proved fatal. The general symptoms of phthisis had not been deceptive. There was little deposition of tubercle in or near the apex of the lungs, but throughout their whole structure were here and there small tubercles, from the size of a millet-seed to that of a large cherry, many of which were softened, and several filled with the pus-like matter resulting from the disintegration of tubercle. Some, Dr. Wood thought, had opened into the bronchial tubes.

It is a question of some interest, whence the pus proceeded which filled that portion of the sac in contact with the trachea. Was it the result of a change of the blood into pus, or did it proceed from the walls of the cavity? Dr. Wood was informed that the pus was tinged reddish with blood. This may be considered as somewhat in favour of the idea of the conversion referred to. The inner walls of the arteries are not disposed to form pus. But they may have undergone a material change of character; and, besides, the exposed anterior surface of the trachea might have been the seat of the suppuration; and the colour of the pus may have been owing to a portion of the coagulated blood dissolved in it.

Narcotism from the Extract of Hyoscyamus.—Dr. KEATING narrated the following case. He was summoned on the 25th of January last, at 3 A. M., to Mrs. A., who had been confined ten days before, and was then convalescing from a severe attack of puerperal fever.

Mrs. A. having been seized with an adynamic form of puerperal fever, had been treated by him with large doses of opium, and had taken, within a period of eight days from her confinement, in different forms, an equivalent to ninety-six grains of opium.

The night of the 15th of January, at 10 P. M., he had prescribed for some nervous symptoms from which she was suffering, an anodyne pill, consisting of five grains of Tilden's extract of hyoscyamus. About 3 o'clock A. M. her husband was startled by the peculiarity of her breathing, and upon examining her more closely, he soon discovered that she was completely insensible.

Dr. K. reached her bedside about 4 o'clock A. M., and found her in a state of complete narcotism. Her pulse was small and rapid, about 150 in the minute; the breathing was 36 in the minute, but not stertorous; body covered with a profuse clammy sweat; the pupils were extremely dilated; there was inability to swallow, and a total unconsciousness. Her husband thought that she had been in this state for about two hours.

The character of the breathing, the condition of the skin, which was of a bright red hue resembling scarlatina, and the character of the pulse, proved most conclusively that her narcotism was not the effect of any of the preparations of opium; especially as she had taken none for twenty-four hours. Her recovery, under the use internally of the aromatic spirits of ammonia and brandy and of external counter-irritation, indicated that her condition was due

to the effects of the pill taken the evening previous. The difficulty in swallowing and excessive dilatation of the pupils continued for some time.

Her husband, an experienced druggist, had himself prepared the anodyne pill for her, and only gave three grains of the extract of hyoscyamus, recollecting that some of his medical friends had mentioned to him the powerful effects which they had seen from the employment of that preparation of the extract of hyoscyamus. At Dr. Keating's request, the husband wrote on to Mr. Tilden, sending him some of the drug, and inquiring whether some extract of belladonna had not been commingled with it by mistake. Mr. Tilden positively denied the presence of any belladonna, and declared it a pure extract of hyoscyamus. It was certainly remarkable that narcotism to such a degree should supervene upon the administration of three grains of extract of hyoscyamus, in a patient who had previously borne ninety-six grains of opium without the slightest untoward symptoms, an interval of at least twenty-four hours having elapsed between the administration of the last dose of opium and that of the pill. Whether this latter were hyoscyamus or belladonna, the previous saturation of the patient's system with opiates appears (contrary to recent experience) to have afforded no protection.

Some conversation ensued, in relation to this case, in the course of which Dr. RUSCHENBERGER stated that he had met with a similar instance in the case of a sailor at sea. Dr. R. was accustomed to prescribe four-grain pills of extract of hyoscyamus frequently; and had them prepared in quantities of twenty-four at a time. On one occasion he was called to a man three hours after having ordered him a four-grain pill of extract of hyoscyamus, and found him suffering from delirium, dilated pupil, troubled vision, red skin, and dryness of the fauces. He suspected that extract of belladonna had been substituted, and inquired closely into the matter; but was satisfied by the hospital steward that the pill taken came from among the hyoscyamus pills, and that there was none of the extract of belladonna with which it could have been confounded.

Other Fellows had been in the habit of administering large doses of extract of hyoscyamus, and had never witnessed any serious narcotic effects. The general impression seemed to be that the symptoms described were those of belladonna only, and that, as the extract employed had not been tested by analysis, there must have been more or less extract of belladonna.

April 7th. Case of Craniotomy.—Dr. CORSE read the following: The operation of craniotomy becomes necessary from some disproportion between the size of the fœtal head and the mother's pelvis. The precise measure of this disproportion necessary to justify craniotomy is not determined. One will say that it ought not to be performed unless the disproportion is so great as to render impossible the passage of the head through the pelvis; another will say, that the life of the mother is much more important than that of

the child, and any relative size which would endanger the mother's life would justify the operation. Admitting either of these, we shall always want some determinate means of ascertaining when this is the case; and after all it will have to be left to the judgment of the operator, either alone or in consultation.

Much difficulty presents in making this diagnosis, and some errors of opinion have occurred, as proved by the size of the fœtus obtained, for at a subsequent period the patient has been safely delivered of a larger fœtus than the one removed by craniotomy. It is therefore something to have a body of unusual size to *show*, in order to justify your operation, as may be illustrated by the following case.

Mrs. ——, of her fourth pregnancy, was taken in labour on Wednesday afternoon, and during that night the pains were very severe; they abated somewhat on Thursday morning, recurred with violence again on Thursday evening, and continued unabated until Friday morning, when the physician in attendance sent for me. I found the head presenting the anterior fontanelle, seventh position, and very high up, yet forcibly pressed against the brim of the superior strait; the os was undilated although not rigid. I saw no immediate danger, and left the case for the time, but returned several times during the day. Symptoms continued moderate, and the os became fully dilated; in the evening the symptoms became urgent, and as we were of opinion that she could not be delivered without aid, the forceps were applied. After prolonged and unavailing efforts, it was deemed necessary for the safety of the mother to diminish the size of the cranium by evacuating its contents. This being done by the usual means, a fœtus *twenty-four inches long* and *twelve and a half pounds in weight* was delivered; the measurements of the head could not be made out, but the dimensions of the other part of the body will afford us some idea of its size.

I learned from her that her first two deliveries were accomplished by "cutting up the child," to use her own words, but I could not learn whether by embryotomy or craniotomy. The third one was delivered by forceps, but was smaller than this, and dead when delivered.

Subsequent examination showed the pelvis to be deformed in the antero-posterior diameter, which was greatly contracted.

This case is one of large fœtus and small pelvis, combining the two difficulties, either of which usually renders craniotomy necessary. The patient reacted from the operation in a few hours, has since been doing well, and is at the present time living in apparent good health.

Dr. Corse then exhibited the fœtus to the Fellows, and renewed the measurements in their presence.

Melanosis of the Supra-Renal Capsules.—Dr. Levick availed himself of the opportunity to say, that in a case of melanosis reported in the last printed "Transactions of the College," attention is called by him to the condition of the *supra-renal capsules*, the description of which he had accidentally omitted.

Both of these organs were much diseased. That of the left side was torn in its removal, and could not be so accurately examined. That of the right side appeared to be enlarged, but upon close examination it was found that its healthy structure was replaced by soft, pultaceous melanotic matter.

The close relation supposed to exist between disease of the supra-renal capsule and an excess of pigmentary formation in the skin, renders their pathological condition a matter of interest.

In this case, although there was such an excess of this black deposit in nearly all of the internal organs, the skin was entirely free from any unnatural discoloration.

Arsenical Poisoning—Arsenic in Subnitrate of Bismuth.—Dr. ROGERS called the attention of the College to a recent case of suspected poisoning with arsenic, the peculiar circumstances of which, as developed in the course of the legal investigation, rendered it unusually interesting in a medico-legal point of view.

The trial was suddenly cut short, and the accused party released, on account of an accidental impurity discovered by him (Dr. Rogers) in the medicine which had been administered by the attending physician of the deceased.

His object was not to discuss the evidence of poisoning in the case, although he had no doubt that, with all the facts elicited at the trial at his command, such a discussion would both be interesting and instructive; he wished to refer only to the point already alluded to as having terminated the prosecution; and, at the same time, to put the Fellows of the College on their guard against an accidental impurity of a common remedy, which had been hitherto unsuspected, viz., the presence of *arsenic acid in the subnitrate of bismuth.*

Dr. Rogers was unable, from his own knowledge, to detail the history of the case from the beginning. His connection with the investigation dated only from the time when the stomach and intestines were brought to him, carefully separated from other parts of the body, and for chemical analysis *alone.*

The examination was conducted exclusively for arsenic, since that substance was known to have been procured by the accused; while there were other circumstances tending to create the suspicion that it had been criminally administered.

The stomach and alimentary canal contained a very small amount of pulpy matter. This, taken from the stomach and then from successive portions of the bowels, was analyzed, and in each case exhibited the presence of arsenic.

The material of the stomach itself was next examined, and likewise found to contain arsenic. The bowels were then divided into five equal lengths, and each subjected to the proper tests, and with the same results.

The presence of the arsenic in all of these experiments was not only unmistakable, but very decided in amount. How much the patient had swallowed, even presuming that it had been given with intent to poison, it would

have been impossible to determine by the most careful quantitative examination, since copious vomiting and purging had prevailed during several days, and up to a short period before death, so that the stomach and bowels were almost completely emptied of their previous contents.

The presence of the arsenic in the substance of the tissues examined naturally induced the presumption that it existed in the liver, lungs, and other portions of the body of the deceased. He regretted that he had not had the opportunity to ascertain the fact, as nothing had been preserved and sent to him except the parts referred to, nor were these in a condition to enable him to recognize either the presence or absence of the physical signs of irritation or inflammation, such as might have been expected in a case of arsenical poisoning.

Hence, in the absence of any proof of an absolute amount of arsenic adequate to destroy life, the mere fact of the discovery of a poisonous adulteration of the medicine administered was considered sufficient to invalidate the evidence against the prisoner, and to justify her immediate acquittal.

During the early days of the trial, nothing occurred to indicate that arsenic had been administered as an adulterating substance of the medicine directed by the prescribing physician. At a later period, the court called for a copy of the prescriptions which had been ordered by the physician, and subnitrate of bismuth appearing as one of them, Dr. Rogers directed his efforts to determine how far that substance was pure.

He was unable to procure a specimen of the identical subnitrate which had been administered, not succeeding in finding the druggist who had sold it, but obtained a number of samples from individuals throughout the city, and prepared, many of them, by different manufacturers.

Of ten specimens, some of which were imported, which he examined, all were found to contain arsenic with the exception of two.

He did not experiment to ascertain the percentage, but inferred it to be small, too much so, he presumed, to have any material effect except in long continued and unusually large doses. It was not shown in this case, nor was it probable that enough could have been taken in that way to produce the vomiting and purging, much less the fatal result. It was to be remembered also that the symptoms attributed afterwards to poisoning, had begun and continued for some time before the bismuth had been taken.

He then exhibited to the College the result of some of his analyses in the arsenical rings deposited within the tubes employed.

He remarked further that the druggists applied to for specimens or samples did not appear to be aware of any liability to this kind of impurity in subnitrate of bismuth, a fact which rendered it still more desirable that the subject should be brought before the notice of the College—since the usual mode of preparing the subnitrate, unless great care was taken in washing the product, rather favoured the presence of arsenic acid, unless the bismuth from which it is prepared be pure.

Considerable discussion ensued on the part of Drs. Bell, Gross, Coates, F. Bache, H. Hartshorne, Hays, Jewell and Levick, upon this case, and upon the use and effects of large doses of the subnitrate of bismuth.

From this it appeared that, although all the Fellows present had been for several years accustomed to prescribing large and small doses of the preparation, and often for considerable periods, no symptom of arsenical irritation had ever been observed. The only unpleasant effect noted was the slight temporary discomfort which is well known to occur in some peculiarly susceptible patients, or from its long continued administration.

Dr. LEVICK, among others, referred to a case of phthisis, observed by him several years ago at the Pennsylvania Hospital, in which, on account of an obstinate diarrhœa, twenty grains of subnitrate of bismuth were given four times a day during the last two weeks of the patient's life. At the autopsy, the bismuth was found lining the whole length of the alimentary canal. This observation accorded with common experience; and, although affording no evidence of mischievous operation in this particular case, it had awakened his attention, and had ever since induced him to be more cautious and reserved in the resort to the large doses of the remedy which have been prevalent for some years past.

Sickbed.—Dr. ADDINELL HEWSON exhibited a model of a *sickbed* which he had devised and had had in use for some time. He remarked that it was a contrivance which could be readily adjusted to any ordinary bedstead without cutting or disfiguring it in the least. A board (AB, Fig. 1), 15 or 18 inches broad, and of sufficient length, is to be substituted for three or four of the slats forming the bottom of the bedstead. The ends of this board (A and B) should be cut so as to fit in the mortises originally made in the sides of the bedstead for the slats. In the centre of this board there should be an oval hole (C) 10 by 7 inches—its long diameter corresponding to the length of the bedstead. To the upper and lower borders of this board there should be secured strips DE and FG, extending between the sides of the bedstead. These strips should have grooves near their lower borders, and running their full length as seen on FG for the tray containing the bedpan to slide in. They (the strips) should have a depth sufficient to make the plane of these grooves below the plane of the sides of the bedstead. To the bottom of the board (substituted for the slats) there is to be hinged a trap-door H, to which an oval and somewhat conical pad is to be secured. This door should have a length equal to a little over one-fourth the width of the bedstead, and a breadth of twelve inches. It may be made of one inch stuff, and should then have secured, at equal distances on its under surface, two or three strips an inch broad, and with a depth sufficient to bring their lower surface (when the door is shut up), on a level with the upper edge of the grooves in the side-pieces, or the upper surface of the tray. These strips should terminate in a cross-piece at the far end of the door, and this last piece should extend an inch on either side beyond the door.

Fig. 1.

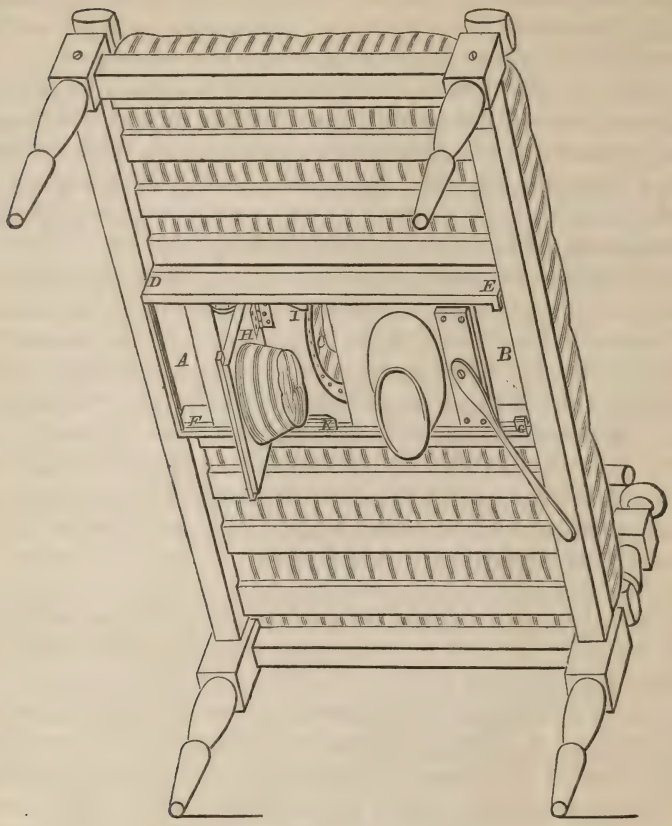
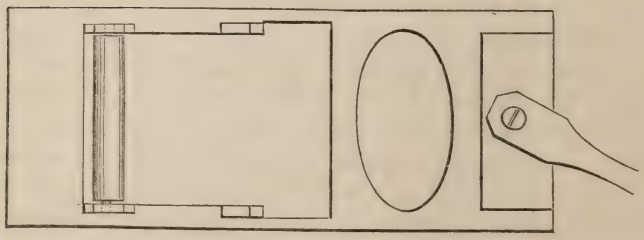


Fig. 2.



A tray (Fig. 2) of sufficient width to slide in the grooves of DE and FG, Fig. 1, should be made of one inch stuff, and have a length equal to five-eighths the width of the bedstead. This tray should have in it an oval hole 10 by 7 inches for the pan, and a square hole fully equal in length and breadth to the door, save at the end near the hole for the pan—here this square opening should be increased in width by the removal from either corner of a piece 1 in. by 2½ in., so as to allow the jutting ends of the cross-piece attached to the door to fall through as the pan is pushed towards the hole

in the bed, or to rise up above the tray when it is desired to remove the pan and replace the plug. To close up the door, and thus replace the plug in the mattress, without any friction or jarring, a wooden roller of 2½ inches diameter should be secured to the under surface of the tray at the far end of the square opening, and at such a distance from the notches for the escape of the cross-piece of the trap-door, as will be equal to two-thirds the length of the door. The tray is to be moved by a handle attached to it by a pivot.

For the purpose of preventing the attendant from pushing or pulling the tray too far in either direction, stops should be provided, such as are indicated at DE and FG. Thus, at DE, there is a strip extending between the cleats, which will check the tray in that direction by the roller striking against it. Then the tray cannot be drawn out too far by the two little points on the bottom of the tray, at I and K, infringing on the stops indicated at E and C.

These last checks allow of the tray being drawn out sufficiently far from beneath the bed for the removal of the pan, and when the tray is drawn out this far, the trap-door is supported up in its place by the jutting ends of the cross-piece resting on the distant end of the tray. These jutting ends continue to support the door, as the tray is pushed in, until it is pushed so far as to bring the notches, in the square opening, beneath these ends, when all support is removed from the door, and it falls rapidly by its own weight; then, by continuing to push the tray inwards, the pan is brought beneath the opening in the bed.

A hole should be made in the mattress to correspond with that in the board. It should be oval, and measure 10 by 6 inches on the upper surface. The far side of this hole (from the hinges of the door) should be bevelled so that it will measure in the lower surface 10 by 7 inches. To prevent the weight of the patient pressing the mattress over into this opening, the edge of the hole in the board should be bound round with tin, jutting 1½ inch above its upper surface.

The apparatus will work best when the hinges of the door are as far as possible from the hole—and the plug placed as near as it can be to the free end of the door. The plug will thus be made to describe the arc of the largest circle possible in the swinging of the door, and will therefore not require to be bevelled as much as it would if placed in the centre of the door, and the door hinged nearer to the opening. The bevelling of the plug and of the hole in the mattress is only required on one side—the side towards the handle of the tray—and if this bevelling is made to correspond with the arc of the circle described by the upper and far edge of the plug, the plug will fit with great accuracy in the opening. This plug should be secured firmly to the door either by being tacked to it, or fastened by tapes passed through holes provided for the purpose.

Dr. H., after describing it, said that previous to devising this bed, he was not aware of the existence of any other similar contrivance or convenience.

The bed in use at the Pennsylvania Hospital, with which he and probably most of the Fellows of the College were familiar, possessed in his opinion but little, if any, convenience over an ordinary bed. This hospital bed has a round hole in it of 10 inches diameter, under which a pan is slid on cleats provided for the purpose, and this hole has to be filled up by a plug introduced from above. The patient must therefore be subjected to as much inconvenience, and be moved as much in attending to the calls of nature on it, as he would be in using a bedpan on an ordinary bed. Then, again, the hole is so large and so imperfectly filled by the plug, that the patient invariably sinks down into it, and soon wears away the mattress around the edge, if he is allowed to remain on it for any considerable time. Thus he very soon ceases to be lying on a level surface—a very great *desideratum* in the treatment of most fractures of the lower extremity, and in the prevention and management of bed sores in cases of long or exhausting illness. Dr. H. had recently seen, in the wards of the Pennsylvania Hospital, a mattress worn away in this manner to the thickness of only one inch, and it had originally measured three and a half inches. A patient confined on such a bed must therefore be raised up, if he is lying over the hole, for the removal and replacing of the plug, every time he has occasion to use the chamber; or be slid over the hole, and away from it, if it is desired to obviate the inconvenience of rendering the surface of the bed uneven. In either instance, the patient must be often subjected to considerable inconvenience, and in cases of fractures of the thigh-bone treated by the straight apparatus, the dressing must always be disturbed by such movements.

To obviate such inconveniences, he thought the contrivance which he exhibited would prove of great value. Indeed, in the case (one of excision of the hip-joint) for whose special benefit he had devised the bed, it had proved pre-eminently successful. It had been the source of the greatest comfort and convenience to both the patient and her attendants.

Making the hole oval instead of round, and binding its edge with tin, Dr. H. has found sufficient to prevent the patients sinking into the opening whilst using the chamber, and to effectually avoid any unevenness being produced in the surface of the mattress.

Dr. H. then referred to two ingenious contrivances for the same purpose, with which he had but very recently become acquainted. These were the sickbed of Dr. J. Rhea Barton, and the machine-bed of Dr. B. H. Coates, which are figured and described in the 5th and 9th volumes of the *Eclectic Repertory*. In both these contrivances (which he has learnt from their respective authors have proved very efficient), the removal of a plug in the mattress, and the placing of a pan under the opening, are effected in a similar way to that adopted by him; but in both of these, and especially in Dr. Coates', Dr. H. thought there would be much more friction, and consequently jarring of the bed, and splashing of the contents of the pan, than with the mechanism which he employed.

Dr. COATES felt called upon to congratulate himself, and, indeed, the College, upon meeting with so honourable an inventor as Dr. Addinell Hewson, in reference to the manner in which the latter referred to and exhibited the resemblance of his fracture bed to that of Dr. Coates, and exhibited the publication and plate of this last. (*Eclectic Repertory*, 1818, vol. ix. p. 544.) Dr. C. did not, however, see the defect in solidity of support to which his own invention was obnoxious in comparison with that of Dr. A. H. The trap-door supporting the cushion of Dr. A. H. rested on two jutting points of wood: the cushion of Dr. B. H. C. on three thicknesses of board, one oval and filling the opening in the bottom of the frame of the bedstead, one falling by a hinge, and similar to the trap of Dr. A. H., and one forming part of the slide; and this last on strong cleats. To the adjustment of these it was necessary for the surgeon to attend. In fact, it was the same experience with that of Dr. A. H., and a desire to achieve this very solidity, that gave rise to the invention.

The history of this contrivance was soon told. In 1814 and 1815, the injuries received by men with fractures of the thigh, and other severe lesions near the ilio-femoral joint, when moved for the purpose of permitting the evacuation of the bowels, together with a consequent liability to costiveness, became so apparent, in the Pennsylvania Hospital, as to induce the invention of Dr. J. Rhea Barton. (*Eclectic Repertory*, vol. v. p. 235.) During the use of this for a year or two, Dr. Coates observed that the ropes by which the pressure was sustained yielded somewhat to long-continued extension, and that the nates of the patient consequently pressed against the edge of the perforation in the mattress, and sometimes came in contact with that of the perforated board below. Ulceration was of course occasionally the consequence; and this the more so, in proportion to the immobility of the parts, and, consequently, to the debility of the patient, and the severity of the injury he had sustained. With a view to obviate this, the apparatus figured in the plate exhibited to-night by Dr. A. Hewson, was invented; and it was attempted to secure a firm and continuous support by means of uniform and strong wooden boards and cleats, the bottom of the bedstead being made of wood.

The bedsteads and parts affixed being made in a substantial manner, continued in use for a long period; but when they became ruinous, iron bedsteads had been introduced extensively into the hospital, and the care of the elder Dr. Caspar Wistar, of Arch Street below Eighth, and of Byberry, was employed to adapt a convenient machinery to the new framework. In doing this, Dr. Wistar employed very similar cleats, tilting-piece, slide, and rod, but relinquished the approximation of the handle to the patient's right hand, and the protrusion of the pan towards the foot of the bed, deeming a transverse movement more convenient. Dr. C. was not aware that this modification was ever published.

Fractures of the Scapula.—Dr. NEILL exhibited to the College a specimen of diseased scapula which had been mistaken for one of fracture. There was

a deposit, which somewhat resembled ensheathing callus, on the superior margin of the infra-spinal fossa, and a similar deposit lining a longitudinal fissure in the same fossa. These were the result of tertiary syphilis, and not of violence.

He then presented two specimens of genuine fracture of the scapula, one of the base of that bone, and the other of the neck, the fracture in the second case involving the glenoid cavity and running longitudinally through the neck so as to traverse the base of the coracoid and spinous processes and a portion of the upper margin of the bone.

Both of these specimens were interesting; the latter being particularly so on account of its great rarity, and as an illustration of the manner in which the repair had been effected in the union of the fragments, and the formation of supplementary bone under the muscles of the joint and about the seat of fracture.

Dr. COATES inquired whether the mortality of fractures of the flat portion of the ilium had been found so great as was generally believed.

Dr. NEILL replied that he had met with several cases of recovery from fracture of the ilium, and promised to report them at a future meeting.

Dr. COATES then related the case of a woman who had been treated for such a fracture while Dr. C. was a resident of the Pennsylvania Hospital. A girl, sitting in conversation with several others, all of a doubtful character, had placed herself, about one o'clock on a hot summer's night, on the sill of a third-story window, with her back towards the street. In this situation she was pettishly pushed backwards by one of her companions, to whom she had given offence, and fell over into the street. She was found to have fractured the left leg, and the right os ilium. The salient appendage of the latter bone was so far displaced as to produce a lateral slipping of about the thickness of the compressed end of a little finger. No severe symptoms occurred, and the patient ultimately recovered.

May 5th. Melanosis.—Dr. HENRY BOND reported the following case:—

April 1, 1845, I was called to Mrs. E. R., aged 50 years. She had usually enjoyed good health, had a vigorous constitution, and had continued to menstruate regularly until this attack. She has had two husbands. By the first she had four children, all deceased, the youngest of whom, if living, would have been 20 years old. By her last husband, deceased several years, she had no children.

When I was called to her, she had been ill many days, and all the account she could give was that she had pain in her back, and much general distress. The pain was chiefly in the region between the spine and left scapula, and under this bone. At first, she complained of pain on the right side, but afterwards much more—indeed, chiefly—on the left side of the spine. The

pain sometimes extended, or shot through, to the sternum. Much of the time it was severe in the left shoulder, extending thence down the whole length of the limb. Although there was some arterial excitement, the pulse was not such as to indicate venesection. There was no swelling or tenderness in the shoulder or limb, which were freely moved without any material aggravation of the pain, and little or no tenderness was evinced upon pressing any part of the spine. In the early part of my attendance, the left arm and hand began to be affected with numbness, which never left them; and towards the last, the patient almost entirely lost the use and control of the limb. The ulnar side of the hand and arm were first and chiefly affected. There was no intermission of the pain in the left arm and shoulder, although it varied in intensity, being sometimes very severe.

At first her respiration was free, with little or no cough, expectoration, or morbid symptoms, discovered by auscultation. But this apparently normal condition soon began to change; so that, after a very few weeks, all resonance, all respiratory sound, in the left side, were lost, and in the latter part of the time the cough became very troublesome, attended with the expectoration of only a little mucus, with nothing purulent, and nothing to indicate the character of the disease. Her head appeared to be unaffected, except as the effect of the loss of rest, and of the use of anodynes. In the early part of my attendance, there was sometimes nausea and a variable or capricious appetite. Afterwards, the nausea and vomiting became severe and distressing; and the last part of the time there was nearly a total loss of appetite, and pain more or less severe in the epigastrium; towards the termination, she had at times severe pain in the liver, and a good deal of flatulence. She died May 30, sixty days after my attention was called to the case, and autopsy was performed twenty-six hours after death.

There was so little emaciation that the adipose membrane on the abdomen was from one-third to two-thirds of an inch thick; and there was no melanotic deposit visible upon the surface. Upon opening the thorax, the left pleural cavity was found tensely filled with a clear, yellowish fluid; the lung was entirely collapsed, and seemed to be little more than a web, like a mesentery, for sustaining and giving attachment to a great number of black tubercles of various sizes, from that of a millet-seed to that of a prune. It resembled a cluster of black grapes. The costal pleura was in every part studded with a great number of similar tubercles. These were not generally so large as those in the lung, but they became larger and most numerous towards the spine, where the lung was attached. Melanotic tubercles were likewise numerous in the right lung, but less developed, from the smallest size to that of a pea. This lung appeared otherwise healthy, free from adhesions, and apparently performing well the function of respiration. The left lung presented no appearance of inflammation, adhesion, or suppuration, and appeared healthy, except for the melanotic deposits, and the collapse from the

great pressure by the hydrothorax. In the pericardium there were about ℥ij of yellowish fluid like that in the left pleura.

There was a good deal of flatus in the stomach and large intestines, which had probably not existed long. The mucous membrane of the stomach was thickened and softened, with some dark-coloured patches, with enlarged, arborescent bloodvessels. A few melanotic tubercles or deposits had begun to form under, or in, this membrane. The spleen was unaffected with disease. In the liver there was a considerable number of melanotic tubercles, varying from the smallest size to that of a marble; they were situated at or near the surface, and did not project above it.

The uterus was large and very firm, the os uteri very thick, and the passage through the cervix extremely small, so as to be hardly discernible. The right ovary was very much corrugated, so as to present a surface resembling the convolutions of the brain, and it was drawn up so close to the uterus as to make the Fallopian tube very tortuous. There was one melanotic tubercle of considerable size on this ovary. The left ovary was distended into a sac containing about ℥xiv of fluid. This condition of this ovary had not been suspected during the patient's life.

The melanotic matter was nowhere diffused in an irregular or formless manner, but was everywhere gathered into tubercles or rounded masses. The uniformity in this respect was remarkable, differing therein from most of the cases reported. The melanotic matter was everywhere nearly of the colour of charcoal. There was some outside difference in colour, which might be attributed chiefly, if not entirely, to the membranous covering, or to the cellular substance in which the melanotic matter was deposited. Those tubercles which were covered by pleura only, and were developed to such a size as to stretch this membrane, rendering it nearly transparent, were of a clear black. Occasionally, this colour was obscured by a layer of other membrane in addition to the pleura. Tubercles, which were small, or in an early stage of development, as they were in the right side of the thorax, were more or less black, according to the thickness and tenseness of their coating, and according to the abundance of cellular substance in which they were deposited. Those in the liver and ovary were like bullets or shot of pure charcoal. None of the tubercles had become so much enlarged as to burst its covering, nor was there any evident sign of decomposition or maturation.

When tubercles, which were large or most fully developed, were cut open, their cut surfaces looked like masses of carbon, occasionally with shreds or fibres of cellular substance pervading them; they were generally more or less moist, and, when pressed or scraped, yielded what resembled Indian ink or moistened charcoal. The cut surfaces of the smaller tubercles, or those just begun to be formed, presented a much larger proportion of cellular substance, and this occasioned the incised surfaces to be gray or mottled; but yet the melanotic deposit was always black. I did not observe any odour in the tubercles.

SUMMARY OF THE TRANSACTIONS

OF THE

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

FROM JUNE 2, TO AUGUST 4, 1858, INCLUSIVE.

1858, *June* 2. *Some Facts in Relation to the Nocturnal Incontinence of Urine in Children.* Dr. ADDINELL HEWSON read the following paper:—

There is perhaps no subject which practitioners deem less worthy of their attention, than that of the nocturnal incontinence of urine amongst children. By many this is considered a very trifling affection—by others as no disease whatever; and yet I am disposed to believe that there are but a few who have not been more than once baffled in their attempts to relieve it; still, a very few have ever deemed the subject worthy of close investigation, or careful study; and the majority of those who have written in relation to it have merely indulged in vague generalizations, from recollection only of what they have seen. In this way, various, and often diametrically opposite views, have been broached in regard to its nature, and a great diversity and multiplicity of remedies have been vaunted for its cure.

But these circumstances have only served to convey to my mind the conviction that there is yet much to be learned on the subject. I shall, therefore, with the view of adding something at least to our present stock of knowledge on this matter, proceed to lay before the College some facts in regard to it, which I have had the opportunity of observing, under circumstances peculiarly favourable to their thorough investigation.

In the early part of the past year (1857) I was requested by some of the managers of the House of Refuge to suggest a cure for those of the children in that institution, who were in the frequent practice of wetting the bed; on an investigation, instituted through the watchman and nurse, who furnished me with a daily record of the offenders, I ascertained that there were seventy-eight boys in the institution at that time (the latter part of January), affected with this form of enuresis. This, in a household averaging two hundred and ninety-two boys, gave an alarming proportion of cases, viz., 1 to $3\frac{75}{100}$, and invested the subject with much more importance in my mind than it had ever possessed before. I therefore determined to investigate it. For this purpose, I subjected each case to a most careful examination, and made inquiry into every moral and physical occurrence—into every hygienic and police regulation—into the diet, habits, occupations, and other circum-

stances which might affect these cases, either individually or collectively. The facts thus obtained were carefully recorded by me at the time, and the chief substance of them will be found in this paper.

I shall however confine myself to the consideration of sixty-three of the seventy-eight cases, as the others, fifteen, were only a short time under observation, having been discharged from the institution in the early part of the year. The cases from which my remarks will be drawn, were under my constant observation and control for a period of five months. Tables I. and II. contain abstracts of the histories of these cases. These cases (sixty-three) were very unevenly distributed in the two departments, for there were twenty-nine on the white side, and thirty-four on the coloured side of the house. But, as there was more than twice the number of white to coloured boys in the institution—the ratio for the blacks was far greater than appears above. Thus, of the whole number of boys, two hundred and ninety-two, two hundred and one were white boys, and only ninety-one were black. This would give a ratio of the diseased of 1 in 7 for the white, and 1 in 2.7 for the black. Thus, it would appear that the disease was more than twice as prevalent amongst the black as amongst the whites.

The most obstinate and inveterate case was amongst the blacks.

The average age of the whole number was twelve and one-third years, or in absolute figures twelve years four months and seventeen days.

For the white boys the average age was thirteen years; for the blacks twelve and two-thirds years, or in absolute figures, twelve years eight months and fifteen days.

The youngest affected with the disease was seven years old; the oldest eighteen.

The greatest number affected at any one age was nine, this was at the age of fourteen.

The greatest number affected at any age amongst the coloured boys was seven, at the age of fourteen. The greatest number amongst the white, at any one age, was five. This number occurred at the two ages of eleven and sixteen. The worst case (Cope) was eleven years old. But of the six worst cases out of the sixty-three, three were above eleven years of age, and two below.

The following is a table of the numbers affected at different ages:—

	White.	Black.	Total.		White.	Black.	Total.
7 years old,	1	...	1	14 years old.	2	7	9
8 "	1	3	4	15 "	3	2	5
9 "	1	2	3	16 "	5	3	8
10 "	1	4	5	17 "	1	...	1
11 "	5	2	7	18 "	1	1	2
12 "	4	4	8	Unknown (young)	1	2	3
13 "	3	4	7		29	34	63

The general appearance of health was good in thirty-four of the whole number; these were nineteen whites, and twenty-five blacks, and were all stout hearty boys.

Seven boys were markedly strumous. Of these seven, four were whites and three blacks.

Fifteen were thin and pallid.

Four of the (six) worst cases were stout and hearty. The worst case of all (Cope), was a remarkably stout, hearty looking boy.

The appetite was excellent in fifty-three; thirty of these were blacks, and twenty-three whites.

It was poor in ten, six whites, and four blacks; and of these ten cases, seven suffered with seat-worms; four had furred tongues, two had diarrhœa, and three suffered with constipation.

Twenty-four of the sixty-three had seat-worms (oxyuris vermicularis) making more than one-third of the whole number the subjects of this intestinal irritation. Five of the six most inveterate cases suffered from this trouble. The sixth (Galbraith) suffered from spongy gums. Seven of the white boys were suffering with ringworm (herpes circinatus), and one had the itch (scabies).

Twenty-seven of the cases had clean healthy tongues. Thirteen of these were white boys, and fourteen coloured.

Nineteen had pale, putty looking tongues. Of these eight were white, and eleven coloured.

In seventeen the tongue was coated, viz., eight white, and nine blacks.

Twenty-six had but one alvine dejection per diem. Thirteen of these were white, and thirteen blacks. Sixteen had more than one (from 2 to 4) per diem, viz., eight whites, and eight blacks.

One boy (coloured), had no control whatever over his sphincter ani.

Twenty, eight white and twelve blacks, suffered from constipation. Three of the six worst cases suffered from constipation. Cope, the worst case of all, was regular in his bowels.

Twenty-seven of the cases urinated two or three times in the day, besides emptying the bladder in the morning on rising, and in the evening on going to bed. Eighteen of these were coloured, and nine white.

Twenty-eight, sixteen whites and twelve blacks, were obliged to urinate more frequently during the day.

Three could give no satisfactory account of how often they had to go out to urinate. Four, including the coloured boy who could not retain the contents of the rectum, had no control over the bladder, and wet their clothes during the day; one of these was idiotic.

The urine was of normal colour in	46
" " very pale "	17
	63

It was acid in every one of the sixty-three cases. In four (all white boys), it was very much so, and in seventeen it was only slightly so.

The average specific gravity was 1018. Amongst the whites the average sp. gr. was 1016; amongst the blacks, 1020.

Lowest specific gravity observed was 1010 (in the urine of a coloured boy). The highest 1027 (also in a coloured boy).

The greatest number of any one specific gravity was sixteen. In these it was 1020. The range of the specific gravity for all the cases was as follows:—

Sp. gr.	White.	Black.	Total.	Sp. gr.	White.	Black.	Total.
1010	3	1	4	1021	...	3	3
1012	5	...	5	1022	1	...	1
1013	1	...	1	1023	...	2	2
1015	6	1	7	1024	...	2	2
1016	...	2	2	1025	1	1	2
1017	2	1	3	1026	...	1	1
1018	1	3	4	1027	...	2	2
1019	...	5	5	Not observed	1	2	3
1020	8	8	16		29	34	63

Uric acid was deposited in	. . . .	31 specimens.
Urate of ammonia[1]	"	8 "
Urate of soda	"	1 "
Ammonio phosp. mag.	"	1 "
		41
There was no deposit in	. . . . .	22

Twenty-one of the specimens which yielded uric acid sediment were furnished by the white boys; ten by the black. Six of those which yielded urate of ammonia were obtained from the coloured boys, and in only two specimens from the white boys was urate of ammonia found in excess. The single case of urate of soda was a coloured boy. The ammonio-phosphate of magnesia was found in the urine of a white boy. Of the twenty-two cases in which there was no deposit on cooling, seventeen were black boys, and five white.

I would state in reference to these investigations of the urine, that they were all made by myself, with the assistance of my friends Dr. G. C. Harlan, at the time the Resident of Wills' Hospital, and Dr. John Brook, of Reading, then my private pupil. The number of specimens was too great to admit of the possibility of more than a clinical examination of each one. The urine examined was voided in the morning, in my presence. Its specific gravity and chemical reaction were immediately noted, and, as soon as I could reach home with the specimens, I subjected each to a careful mi-

[1] The deposit so called by Golding Bird, but which Lehmann declares to be urate of soda.

croscopic examination, and made also some rough attempt to determine—by chemical agents—the character of the solid constituents. It was especially necessary that these examinations should be made rapidly, in order to determine, with anything like accuracy, the presence of free uric acid, as it is well known that this acid is often set free by decomposition of its salt, within a short time after the urine has been voided.

I esteemed accuracy, in this respect, of greater importance than a more minute detail of a few of the specimens; for it would have been impossible to have made a detailed analysis of all the specimens voided at the same time; and, to have examined the cases all separately, and at different times, might have led to some error.

The prepuce and penis were discoloured, and the former much elongated as either from frequent pulling, to relieve the itching of cystic irritation, or as from masturbation in no less than forty-six cases.

	White.	Black.
These were	21	25
The organ appeared natural in twelve	6	6
" " unusually small in two	...	2
" " very large in three	2	1
	29	34

As regards the vice of masturbation, eighteen, twelve white boys and six black, confessed to being guilty. In twelve other boys, five whites and seven blacks, there was no suspicion of guilt in this; but in the remaining thirty-three, namely, twelve whites and twenty-one blacks, there was every reason to suspect them; their manner of denying the accusation, and the appearance of the genitals, tended to fix these suspicions on them.

As to the frequency with which the enuresis occurred there were only two who were guilty of it every night without intermission, these would even wet the bed more than once in a single night. Three, all whites, were found to do it six or seven times in the week, with considerable regularity. Seven, three white and four coloured, five or six times; six, three, from either colour, four or five times; six, one white and five coloured, three or four times; twelve (six of each), two or three times; ten (six white and four blacks), once or twice; twelve (five white and seven blacks), only once a week, and three, not as often as once a week. For Wednesday and Saturday night—and especially for the latter—there was always a greater number reported than for any other night of the week; and there was always a fewer number for Sunday night.

These singular facts were merely demonstrative, however, of the influence of diet on the disease, for on Wednesday and Saturday the inmates of the the coloured department had salt pork or fish and hominy for dinner, the white boys had the same, only on Saturday; and fresh beef (boiled), soup, potatoes, rice, cabbage, and bread, on the other days; and for the evening

meal, they had mush and molasses regularly every evening, except Saturday and Sunday evening. On the former of these occasions, they had, instead of the mush and molasses, soup, obtained in the preparation of Sunday's dinner; and on the latter (Sunday evening), they got bread and molasses. The late rising on Sunday morning, which prevails in the institution, might also have contributed to swell the list of Saturday night.

Atmospheric vicissitudes seemed also to exert an influence on the disease. Thus, a sudden fall in the thermometer, or barometer, during the night—either together or separately—always appeared to increase the number of cases. A decrease of temperature seemed especially to produce this effect. I have attempted to represent the influence of these changes in Table III. The apparent exceptions to the statement I have just made, which are noticeable in this table, can be satisfactorily explained in every instance. Thus, many of the exceptions will be found occurring on Wednesday, Saturday, and Sunday nights; but a reason has been already given for the increase of cases on the first and second of these occasions, and for their decrease on the last, which may overbalance the influences of the atmospheric vicissitudes. Thus, it will be observed on the night of the 8th of February, the number of cases decreased, although there was a great fall in the thermometer during that night; but this was Sunday night—the night of all others in which the fewest cases occurred, owing to its being the only night on which they got a dry supper. But even in the majority of these nights (Wednesday, Saturday, and Sunday), where sudden changes have occurred, the influence of such changes has been manifest, although not so much as it was on other occasions. Thus, on the night of Sunday, the 22d of February, the number of cases was increased rather than decreased, as it should have been from the dry supper of that night; but on that night the barometer fell, and thus this instance is proved to be no exception to the rule.

The occurrences of this night, however, furnish another explanation for some of the apparent discrepancies in this table. My only way of representing the thermometrical and barometrical changes between the different days was to give the mean range of each day. These changes may therefore be said to be only representable in an approximate sense. The mean range of the day has thus in some instances indicated an exception to my statement, which in reality had no existence. Thus, in the instance to which I have just been referring, the thermometer rose only 6° during the day of the 22d (Sunday), fell through the night, and was down to 35° in the morning of the 23d. During the 23d it rose so high as really to make the mean of that day much above that of the day previous. Here, then, the table represents the thermometer as rising between the two days, whereas it in reality fell during the intervening night. This fact, it might be thought by some, should destroy all inferences drawn from this table. But this table was merely made to indicate on a glance facts which were observed at the time of their occurrence. It may therefore be said to furnish but an approximation to the

truth. If it, however, under such circumstances, justifies the statement I have made—that the number of cases was always increased by a sudden and decided fall in the thermometer and barometer—how much more accurate must that statement in reality be? I could furnish the records of each day for the whole period of five months, and demonstrate, beyond all cavil, the truth of what I have said; but the recital of such dry details would prove neither interesting nor instructive. I have perhaps already dwelt too much on this point; but as I have found fault with others for merely stating vague inferences of what they have seen, it is especially incumbent on me to avoid exposing myself to similar censure. The fact of such sudden changes influencing this disease, may be thought by some never to have required demonstration.

A reference to this table has suggested to my mind another circumstance which should be mentioned. It will be observed that the number of cases steadily and rapidly increased between the 12th and 16th of March. This increase took place in defiance of the weather, and was, at the time, the source of some perplexity to my mind. In the early part of the week previous, I had ordered all the cases to abstain from drinking anything at the evening meal. This had had an appreciable influence on the number of cases reported during that period; but it was not a mode of treatment altogether agreeable to the patients; some of them, therefore, on the evening of the 12th, slipped off and took a good drink at the hydrant, just before going to bed. The success of their stratagem was such as to induce others to follow their example. The number of visitors to the hydrant increased each night, and their fear of detection became less and less, until, on the night of the 16th, they were caught at their libations. The rigid enforcement of my directions showed itself on the 17th; for on the night of that day the number fell off ten.

On the five nights following that of the 17th of March, this table shows still another digression from what I have stated as occurring so uniformly. During these five nights, the number of cases appears to have been small, although considerable change took place in both the thermometer and barometer. The cases in this portion of the table are, however, only from the coloured department, for, during these five days, the watchman was ill, and unable to report the cases in the white department.

Some influence may perhaps be attributable to the occupations of these boys, in the production of the disease; and the difference of occupation in the two departments may serve to explain the greater frequency of free uric acid amongst the white, and its occurrence in combination with the blacks.

The white boys over 12 years were engaged in the light work of making match-boxes, daguerreotype cases, and brushes. The black boys over 12, in driving heavy machinery for making umbrella frames, which required great consumption of muscular strength.

The departments of the whites are heated by steam; those of the blacks by hot air furnaces. The white boys have more playground, and there is a better circulation of air through their part of the inclosure.

The diet of the house consists of coffee, diluted with milk, and sweetened with molasses, and of dry bread for breakfast. The bread is a mixture of Indian, rye, and wheat, well fermented, and sweet.

For dinner they get soup made with beef, cut in large pieces, which is afterwards served to them as meat, with potatoes and turnips, or hominy, rice, or beans. This constitutes the midday meal every day, except on Wednesday and Saturday, in the colored department, and on Saturday in the white side, when codfish or salt pork is served instead of the beef.

For supper they have Indian mush and molasses every day, except on Saturday and Sunday, as before specified. The meals are all devoured with the rapidity usual to children in public institutions.

In the treatment of these cases, I made trial of a number of the remedies which have been recommended for the cure of this disease, with very variable success. In the first instance I, however, put all the cases on the use of the bromide of potassium in 2½ and 3 gr. doses, thrice daily, according as they were above or below 12 years of age. I do not know of this article ever having been employed, before or since that time, for this purpose. I used it solely for the anaphrodisiac effect which I had seen it exert in cases of seminal emissions and masturbation, and thinking that much of the incontinence of urine was due to irritation consequent on masturbation, of which so many of the cases furnished strong evidence of being guilty, I determined to give it a trial.

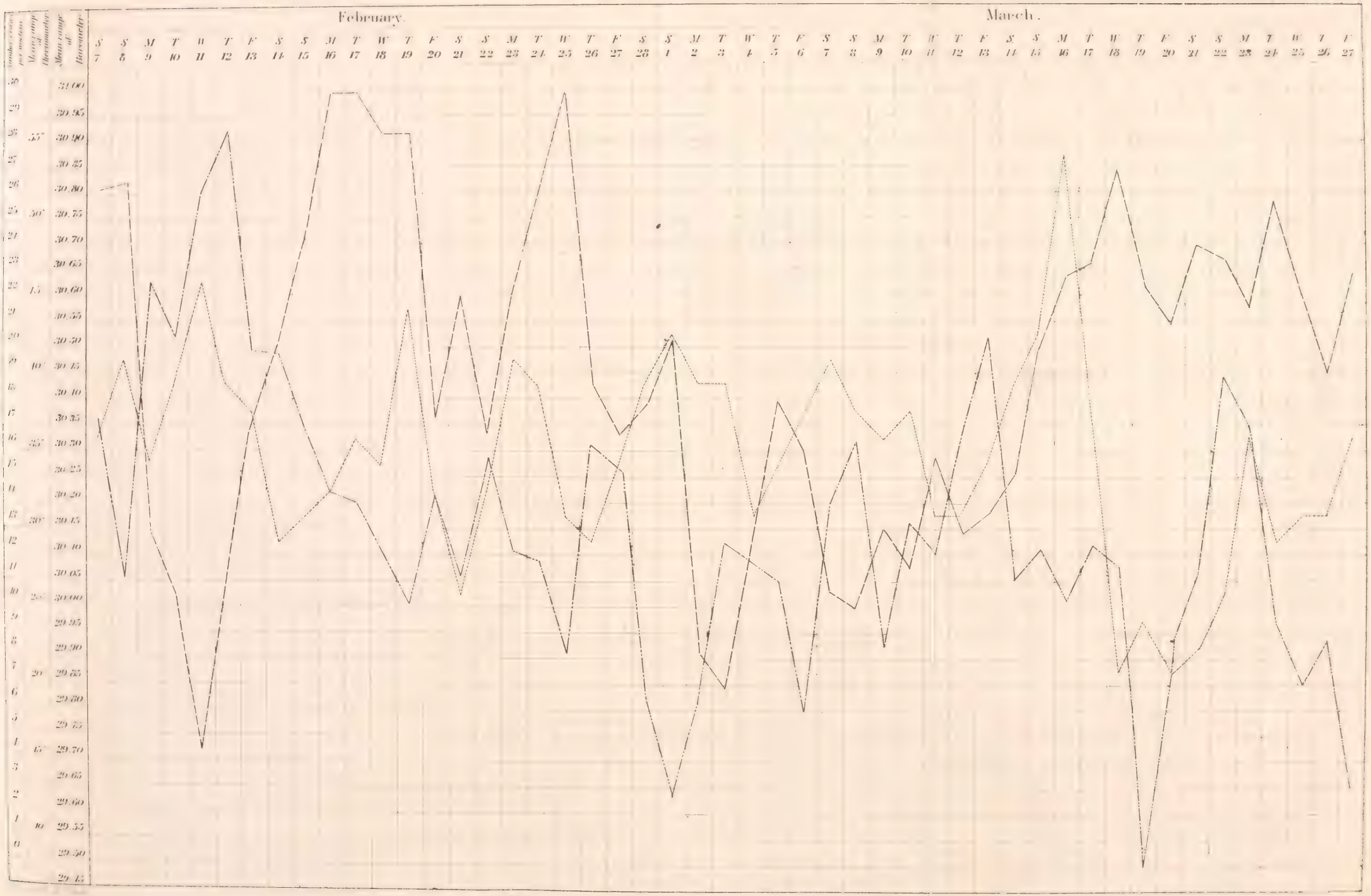
In nine of the sixty-three it effected a complete cure. Not one of these nine cases wet the bed after the first week of its administration. One of these cases was quite a bad one of the disease; but what was singular, I had no reason to suspect him of masturbation. There were also two others in which there was no reason to suspect this vice. In the rest, there was reason for the suspicion, and two of them confessed to being guilty of it.

There were four cases materially benefited by this remedy, although not entirely relieved. Two of these confessed to being masturbators, and one was suspected of the vice.

In the rest of the cases (namely, 50), it seemed to exert no beneficial effect whatever, although its use was faithfully persevered in for two weeks; and in the cases in which masturbation was most strongly suspected, the tinct. of lupuline was combined with it, without any benefit being effected. I should state, also, that the cold douche on the back, loins, and belly, was employed in all the cases whilst the bromide of potassium was being used. But as the douche had been previously employed without any appreciable improvement whatever in the disease, the success above stated, I think, may be justly attributed to the bromide of potassium.

In the cases (54) which were not cured by this remedy, I next employed the tincture of the chloride of iron in five and three drop doses, thrice daily, and doubled the dose at the end of the first week of its use. I gave this a fair trial of more than six weeks, and combined with it the cold douche at

Table III. Showing the influence of Thermometrical and Barometrical Changes on EXURESIS during a period of forty nine days.



Explanations. *Patients*..... *Thermometer*_____ *Barometer*.....

Scale 1 2 3 4 5 *Thermom.* 29.45 *Barometer.*

bedtime, and a dry supper of bread only. The number of cases at the end of these six weeks was, however, as great as when I began the use of the iron.

I then tried the treatment by cantharides, and gave all the white boys the tincture of cantharides in five drop doses, repeated three times each day, from the 22d of April to the 11th of May, and during this same period I applied a series of blisters by the cantharidal collodion over the sacrum and pubes of each of the coloured boys. But, at the end of that time—two weeks—I could not point out a single case which had been in any way benefited, although strangury was effected in the majority of them.

Finally, in the second week of May, I established what I considered a more rational plan of treatment. I ordered for each boy suffering with constipation, a dose of magnesia; for those who were affected with worms, turpentine ʒj, with bicarb. of soda, gr. v, three times a day. And I put them all on the belladonna, giving them five drops of Squire's juice, prepared by Bently's process.

I also ordered that they should all have a dry supper of bread alone, as had been previously recommended, and the cold douche. Each boy was made to rise and urinate an hour after retiring for the night. Under this plan, the number of cases diminished with really astonishing rapidity. During two nights, at the end of the first week of its adoption, there was not a single case reported in the whole institution. Such a thing had not occurred before during the whole time they were under my observation.

At the end of May—two weeks after placing them under this treatment—only four cases, besides those who wet their clothes during the day, were reported, and these were somehow suspected of deliberately wetting the bed for the sake of being continued on bread for supper, which they preferred to the mush. I therefore ordered that all the cases which had been under treatment, should have only a small allowance of bread, so as to go to bed hungry. From that time there was not another case, besides those which suffered with daily incontinence, reported to me. And at the end of June, when my term of service expired, the cases had all been without treatment for two weeks, and there was no recurrence of the disease in any of those affected with the nocturnal incontinence alone. I had never expected to cure those who were unable to control their bladders during the day by any of the remedies above enumerated, and only treated them as I did for the purpose of demonstrating the effects of such remedies in this form of the disease. As it was, however, all these cases were benefited by the belladonna and turpentine, where there existed the association of oxyuris vermicularis with the enuresis. Another of these cases had spongy gums and stomatitis, and took with benefit the chlorate of potassa. The other case was idiotic, and on him the belladonna manifested less benefit than on any of the others.

TABLE I.—*Abstract of the Cases of Enuresis occurring*

No.	Name.	Age.	General appearance.	CONDITION OF DIGESTIVE ORGANS.			CONDITION OF URINE.			
				Appetite.	Tongue	Evacuations.	Frequency per diem.	Color.	Sp. gr.	Chemical reaction, sediment, &c.
1	Koehler	17	Stout and hearty	Good	Natural	1 per diem	3 or 4 times	Natural	1010	Slightly acid; no sediment
2	J. McGuire	7	Short and thin	Capricious	Coated	1 per diem	3 or 4 times	Natural amber	1020	Very acid; ur. ac. and ur. amm.
3	T. McGuire	12	Thin & pale	Good	Natural	Not regular	4 or 5 times	Natural amber	1025	Very acid; urate of ammonia
4	Root	..	Short & very hearty	Good	Slight fur	3 per diem	4 times	Natural amber	1020	Acid; no sediment
5	Alex. Gibbs	12	Fair and thin	Variable	Pale	Not regular	3 or 4 times	Natural amber	1020	Acid; no sediment
6	And. Gibbs	8	Pale & thin	Variable	Pale	Not regular	2 or 3 times	Natural	1020	Acid; uric acid sediment
7	Haley	16	Pale & thin	Variable	Slight fur	Not regular	2 or 3 times	Pale	1010	Acid; uric acid
8	Galbraith	15	Short and stout	Good	Pale	Not regular	Wets his clothes	Amber	1015	Acid; uric acid, large crystals
9	Morris	9	Small, thin, and pale	Good	Coated	3 per diem	3 or 4 times	Pale	1012	Acid; uric acid, large crystals
10	Farns	15	Small and feeble	Good	Natural	1 per diem	3 or 4 times	Natural	1020	Acid; uric acid
11	C. Bloomer	13	Thin and shy	Variable	Natural	Not regular	3 or 4 times	Natural	1015	Acid; uric acid and urate of ammo.
12	W. Bloomer	12	Thin but healthy	Good	Natural	1 per diem	3 or 4 times	Natural	1017	Acid; (slightly) uric acid
13	Hartz	16	Large, hearty	Good	Coated	1 per diem	2 or 3 times	Pale	1015	Acid; no sediment
14	Walker	11	Thick set and hearty	Good	Pale	1 per diem	3 or 4 times	Natural	1020	Acid; uric acid
15	Dolin	14	Pale	Good	Natural	1 per diem	3 times	Bright amber	1020	Acid; uric acid small quantity
16	Nesson	14	Healthy	Good	Pale putty	Not regular	2 or 3 times	Pale	1015	Acid; uric acid lozenges
17	Cook	11	Thin	Good	Pale	2 per diem	2 or 3 times	Light amber	1020	Acid; uric acid
18	Falkner	13	Healthy	Good	Coated	Not regular	Every 3 hours	Pale	1012	Acid; ammonia, phos. of mag.
19	Osborne	16	Stout, healthy	Good	Natural	1 per diem	3 or 4 times	Pale	1010	Acid; uric acid
20	Bennett	16	Strumous	Good	Coated	1 per diem	3 or 4 times	Pale	...	No sediment
21	Baker	16	Tall, strumous	Good	Putty	2 per diem	3 or 4 times	Amber	1015	Acid; no sediment
22	Fullerton	11	Thin (red hair)	Good	Natural	1 a week	2 or 3 times	Pale	1018	Acid; uric acid slight
23	Young	12	Healthy	Good	Pale	2 per diem	3 or 4 times	Amber	1012	Very acid; uric acid
24	Price	15	Healthy	Good	Natural	1 or 2 per diem	2 or 3 times	Pale	1012	Very acid; uric acid
25	Johnston	13	Strumous	Good	Natural	1 or 2 per diem	3 or 4 times	Pale	1015	Acid; uric acid
26	McCann	11	Thin	Good	Slight fur	1 per diem	3 or 4 times	Natural	1017	Acid; uric acid
27	Shannon	10	Healthy	Good	Natural	Not regular	3 or 4 times	Natural	1022	Acid; uric acid
28	Porr	18	Pale. thin (idiotic)	Variable	Natural red	2 per diem	Wets his clothes	Pale	1012	Acid; urate of ammonia
29	Callender	11	Strumous	Good	Natural	1 per diem	3 or 4 times	Natural	1013	Acid; uric acid

in the White Department of the House of Refuge.

Special disease.	Frequency of habit.	Appearance of genitalia.	Secret vice.	Remarks.
No ascarides or other dis.	4 or 5 times a week	Natural	None	Cured by bromide of potassium.
Has ascarides	6 or 7 times a week	Natural	None	Cured by belladonna, turpentine, and soda.
No ascarides or other dis.	6 or 7 times a week	Prepuce elongated and red	Denies any	Cured by belladonna and magnesia.
Has ascarides	6 or 7 times a week	Prepuce and penis elongated	Denies any	Cured by belladonna, turpentine, and soda.
No ascarides or other dis.	3 or 4 times a week	Natural	None	Cured by belladonna.
No ascarides or other dis.	4 or 5 times a week	Natural	None	Cured by belladonna and magnesia.
No ascarides or other dis.	5 or 6 times a week	Prepuce and penis elongated	Confesses	Benefited by bromide of potassium.
No ascarides: spongy gums	6 or 7 times a week	Prepuce and penis elongated	Confesses	Benefited by belladonna.
Has ascarides	5 or 6 times a week	Natural	None	Cured by bromide of potassium.
Has ascarides	Once a week	Prepuce and penis elongated	Confesses	Benefited by bromide of potassium.
No ascarides	Once a week	Prepuce and penis elongated	Denies any	Benefited by bromide of potassium.
No ascarides	Once a week	Natural	Denies any	Benefited by bromide of potassium.
No ascarides	1 or 2 times a week	Prepuce and penis very large	Denies any	Cured by belladonna and magnesia.
No ascarides	4 or 5 times a week	Prepuce and penis elongated	Denies any	Cured by belladonna.
No ascarides	5 or 6 times a week	Penis large; has a rupture	Denies any	Cured by belladonna.
Has herpes circinatus	2 or 3 times a week	Prepuce and penis elongated	Denies any	Cured by belladonna and magnesia.
No ascarides	2 or 3 times a week	Natural	Denies any	Cured by bromide of potassium.
Has ascarides	Once a week	Prepuce and penis elongated	Confesses	Cured by bromide of potassium.
No ascarides	2 or 3 times a week	Prepuce and penis elongated	Confesses	Cured by belladonna.
No ascarides	2 or 3 times a week	Prepuce and penis elongated	Confesses	Cured by belladonna.
Has herpes circinatus	2 or 3 times a week	Prepuce and penis elongated	Mast. ev'ry night	Cured by belladonna and magnesia.
Has scabies, no ascarides	Once a week	Prepuce and penis elongated	Confesses	Cured by belladonna.
Has herpes circinatus	1 or 2 times a week	Prepuce and penis elongated	..	Cured by belladonna.
Has had ascarides	1 or 2 times a week	Prepuce and penis reddened	Denies any	Cured by belladonna and turpentine.
Has herpes circinatus	1 or 2 times a week	Prepuce and penis elongated	Confesses	Cured by belladonna.
Has herpes circinatus	1 or 2 times a week	Prepuce and penis elongated	Denies any	Cured by belladonna and magnesia.
Has herpes circinatus	2 or 3 times a week	Prepuce and penis elongated	Denies any	Cured by belladonna and magnesia.
No ascarides	Day and night	Prepuce and penis elongated	Confesses	Benefited by belladonna.
Has herpes & ascarides	1 or 2 times a week	Prepuce and penis elongated	Confesses	Benefited by belladonna.

TABLE II.—*Abstract of the Cases of Enuresis occurring*

No.	Name.	Age.	General Appearance.	CONDITION OF DIGESTIVE ORGANS.			CONDITION OF URINE.			
				Appetite.	Tongue.	Evacuations.	Frequency per diem.	Color.	Sp. gr.	Chemical reaction, sediment, &c.
1	J. Cole	10	Thin mulatto	Good	Pale	Constipated	2 or 3 times	Light	..	Saccharine; no sediment
2	Morris	9	Stout, dark	Good	Pale	Not regular	3 or 4 times	Natural	1025	Acid; uric acid and urate of ammon.
3	Banks	12	Stout and healthy	Good	Natural	Constipated	2 or 3 times	Light amber	1024½	Acid; urate of ammonia
4	Robinson	12	Markedly strumous	Good	Slight fur	Not every day	3 or 4 times	Natural	1023	Acid; urid acid
5	Harris	13	Healthy	Good	Natural	Once a day	1 or 2 times	Natural	1019	Saccharine, acid; no sediment
6	Clark	9	Healthy	Good	Pale	Not regular	2 or 3 times	Natural	1020	Acid; no sediment
7	J. Brown	14	Healthy, large lips	Variable	Pale	Regular	2 or 3 times	Natural	1021	Acid; no sediment
8	Eates	16	Dark, stout, healthy	Good	Slight fur	Twice a day	Twice a day	Natural	1019	Acid; no sediment
9	Wallace	..	Stout mulatto	Not good	Pale	4 or 5 a day	2 or 3 times	Natural	1024	Acid; no sediment
10	Chris. Field	14	Large, stout	Variable	Pale	Twice a day	2 or 3 times	Natural	1018	Acid; no sediment
11	Cope	11	Short, stout, and hearty	Good	Pale	Once a day	Seldom	Light amber	1018	Acid; urate of ammonia
12	Thomas	12	Emaciated	Variable	Natural	Regular	3 or 4 times	Light	1017	Saccharine, acid; urate of ammon.
13	R. Johnson	8	Short, hearty	Variable	Slight fur	Twice a day & painful	Twice a day	Natural	1016	Acid; no sediment
14	Gilmore	10	Short and thin	Good	Pale	Twice a day	3 times	Natural	1019	Acid; uric acid
15	Js. Brown	14	Healthy	Good	Coated	Once a day	3 times	Natural	1021	Acid; uric acid
16	G. Hackett	10	Stout, healthy	Good	Pale	Once a day	Twice a day	Natural	1026	Acid; uric acid
17	Casey	14	Light, healthy	Good	Natural	Constipated	3 or 4 times	Natural	1027	Acid; uric acid
18	D. Palmer	14	Thin, dark	Good	Pale	Once or twice	2 or 3 times	Natural	..	Acid; uric acid
19	Samons	14	Healthy	Good	Natural	Constipated	2 or 3 times	Natural	1018	Acid; uric acid
20	C. Hardy	13	Light and thin	Good	Pale	Constipated	Once a day	Natural	1020	Saccharine; no sediment
21	Pitts	11	Large and healthy	Good	Natural	Constipated	Twice a day	Natural	1010	Acid; no sediment
22	Sam. Johnson	10	Short, hearty	Good	Natural	Regular	3 or 4 times	Natural	1016	Acid; uric acid
23	John Baily	16	Stout, hearty	Good	Natural	Regular	3 or 4 times	Natural	1027	Acid; no sediment
24	Francis Stevens	8	Short, hearty & straight-haired	Good	Natural	Regular	Wets himself during the day	Light	1020	Acid; no sediment
25	Bunce	14	Large and dark	Good	Natural	Constipated	2 or 3 times	Natural	1020	Acid; no sediment
26	Wm. Halgaman	10	Thin	Good	Natural	Twice a day	3 times	Natural	1023	Acid; no sediment
27	Riley	8	Stout, hearty	Good	Natural	2 or 3 a week	2 or 3 times	Natural	1020	Acid; urate of ammonia
28	Alexander	13	Light, stout	Good	Natural	3 times a day	Wets his clothes	Natural	1019	Acid; urate of soda
29	A. Lopeman	15	Healthy mulatto	Good	Natural	Twice a week	3 or 4 times	Natural	1020	Acid; uric acid
30	Jas. Bond	..	Dark, healthy	Good	Coated	Not regular	2 or 3 times	Natural	1021	Acid; no sediment
31	Shafer	18	Good	Good	Coated	Regular	3 or 4 times	Natural	1015	Acid; urate of ammonia
32	John Lea	15	Tall & healthy	Good	Coated	2 or 3 times a day	2 or 3 times	Natural	1020	Acid; uric acid
33	Jos. Oliver	13	Thin	Good	Coated	Regular	3 or 4 times	Natural	1019	Acid; no sediment
34	Walters	12	Stout, dark	Good	Coated	Regular	4 or 5 times	Natural	1020	Acid; no sediment

in the Colored Department of the House of Refuge.

Special disease.	Frequency of habit.	Appearance of genitalia.	Secret vice.	Remarks.
No ascarides or other dis.	2 or 3 times a week	Prepuce much elongated	Denies any	Cured by bromide of potassium.
Has ascarides	4 or 5 times a week	Prepuce much elongated	Denies any	Cured by belladonna, magnesia, and turpentine.
Has passed lumbricoid	4 or 5 times a week	Prepuce much elongated	Denies any	Cured by belladonna, magnesia, and turpentine.
No ascarides or other dis.	1 or 2 times a week	Prepuce much elongated	Denies any	Cured by bromide of potassium.
No ascarides or other dis.	3 or 4 times a week	Prepuce much elongated	Denies any	Cured by belladonna.
No ascarides or other dis.	3 or 4 times a week	Prepuce much elongated	Denies any	Cured by belladonna and magnesia.
No ascarides or other dis.	5 or 6 times a week	Prepuce much elongated	Confesses	Cured by belladonna.
Has ascarides	5 or 6 times a week	Penis and prepuce elongated	Denies any	Cured by belladonna and turpentine
Has cough, diarrhœa, & ascarides	5 or 6 times a week	Penis and prepuce elongated.	Denies any	Cured by belladonna and turpentine.
Has ascarides	4 or 5 times a week	Small	Denies any	Cured by belladonna and turpentine.
Has ascarides	Every night	Prepuce and penis elongated	Strongly suspected	Cured by belladonna and turpentine.
Has ascarides	3 to 5 times a week	Prepuce and penis elongated	Denies any	Cured by belladonna and turpentine.
Has ascarides	5 or 6 times a week	Prepuce and penis elongated	Confesses	Cured by belladonna, turpentine, and magnesia.
No ascarides	Once a week	Prepuce and penis elongated	Confesses	Cured by bromide of potassium.
No ascarides	Once a week	Prepuce and penis elongated	Denies any	Cured by belladonna.
No ascarides	Once a week	Prepuce and penis elongated	Denies any	Cured by belladonna.
Has ascarides	Once a week	Prepuce and penis elongated	Denies any	Cured by bromide of potassium.
Has ascarides	Once or twice a week	Prepuce and penis elongated	Masturbates	Cured by belladonna and turpentine.
Has ascarides	4 times a week	Prepuce and penis elongated	Masturbates	Cured by belladonna, turpentine, and magnesia.
No ascarides	Occasionally	Prepuce and penis elongated	Denies any	Cured by belladonna, turpentine, and magnesia.
Has ascarides	4 or 5 times	Natural	None	Cured by belladonna, turpentine, and magnesia.
No ascarides	2 or 3 times a week	Prepuce and penis elongated	Confesses	Cured by belladonna.
Has ascarides	Once a week	Natural	None	Cured by belladonna and turpentine.
Has ascarides	3 or 4 times a week	Prepuce and penis elongated	Denies any	Benefited by belladonna.
Has ascarides	3 times a week	Prepuce and penis elongated	Denies any	Cured by belladonna, turpentine, and magnesia.
No ascarides	Once a week	Natural	None	Cured by belladonna.
No ascarides	Twice a week	Small	None	Cured by belladonna.
Has ascarides	Once a week	Prepuce much elongated	Denies any	Benefited by belladonna.
No ascarides	Twice a week	Natural	None	Cured by belladonna and magnesia.
No ascarides	Occasionally	Natural	None	Cured by belladonna and magnesia.
No ascarides	Occasionally	Natural	None	Cured by belladonna and magnesia.
No ascarides	Twice a week	Penis very large	Denies any	Cured by belladonna and magnesia.
Has ascarides	3 times a week	Prepuce and penis elongated	Denies any	Cured by belladonna and turpentine.
Has ascarides	3 times a week	Natural	None	Cured by belladonna and magnesia.

It will be remarked that the cases I have reported were confined exclusively to the male departments of the institution. No complaints were made to me at the time my attention was called to the disease amongst the boys, of its existence in the girls' department. This struck me at the time as somewhat singular, and I made inquiry on the subject, and, much to my surprise, I found that the disease was really confined to the boys, for there were but two out of the whole number of girls (about 80) in the house ever guilty of wetting the bed. These did it so seldom as not to be the source of annoyance or inconvenience. The average age of the girls was somewhat greater than that of the boys, and their general condition and health far better. I had very seldom occasion to prescribe for one of them, especially in the white department, during the whole six months. As a class, they were remarkably healthy, stout and ruddy. They performed the household duties, such as cooking, cleaning, washing, ironing, mending and making clothes for the whole house. They were occupied about five hours each day in school—had three hours for amusement, chiefly jumping of rope and swinging in the yard. They indulged in a great deal of singing at all times. They had the same diet as the boys. Morally they were no better than the boys—many of them, even of the youngest, had led dissolute lives. I had no way of determining with anything like an approximation to the truth the frequency or even the existence of masturbation amongst them. A vaginal examination in itself, if justified by my own conscience, or allowed by the Managers, would not have determined with accuracy the fact. I also made no examination of the urine in this department with the view of determining a cause of the difference between the two sex—my time was too much occupied for the purpose, with my investigations in the male department. My researches, therefore, as regards the influence of sex in this disease, were not as complete as might be desired, but they are at least in confirmation with the most generally expressed views, that the disease is most common amongst boys.

Dr. Condie said that the communication of Dr. Hewson was a most interesting one on a most interesting subject. Dr. Condie was pleased that so favourable an opportunity for the careful study of incontinency of urine, as it occurs in children, had been afforded the gentleman, and that he had been enabled so successfully to improve it. His communication exhibits the first attempt, so far as Dr. Condie was aware, to substitute facts for surmises, the results of close observation for mere hypothesis, in respect to the circumstances under which enuresis is met with in childhood, and the particular conditions of the patient with which it is associated.

Dr. Condie had been engaged for many years in an investigation of the same subject, but under circumstances far less favourable to the accuracy of the results than those which have occurred to Dr. Hewson. The cases observed by Dr. Condie were not placed under so close and careful observation as those of Dr. Hewson; for some of the most important particulars connected with them he had to depend upon the reports of parents, and often of ignorant

and unfaithful nurses. He was pleased to find, however, that the results of his investigations, imperfect as they were in accuracy, corresponded in their general features with those which might be drawn from the cases observed by Dr. Hewson.

Dr. Condie, contrary to what he had anticipated when he began the investigation, found that incontinence of urine was much more common in boys than in girls. So far as his observations went, the disease or infirmity, whichever it may be, was less frequent among children at home than among those congregated in public institutions, boarding-schools for young boys, etc. In some of the cases observed by Dr. Condie, the incontinence was experienced throughout the whole twenty-four hours; the children being unable to control for a moment the inclination to urinate when it occurred, during the day or at night, and in the majority of these patients the inclination was experienced at much shorter intervals than is usual in children. In the majority of cases, the incontinence was experienced only during the night, and when the patient slept, sometimes every night, at others only occasionally. Dr. Condie had found the disease more common among children badly brought up—who were neglected in both their hygienic and moral training. In some cases, nocturnal incontinence of urine would appear to be the result of a careless, lazy, filthy habit; in such it might be cured by a cautious disciplinary treatment; but in the majority of cases, the incontinence was the result of causes altogether beyond the control of either the parents or the children; it was, properly speaking, a disease.

In cases of nocturnal incontinence, Dr. Condie had found the most effectual remedy to be the belladonna. He had frequently combined it with one or other of the chalybeate preparations, having, in numerous cases, found the enuresis to be connected with a cachectic condition of the system, or with symptoms indicating an impoverished state of the blood. In those cases in which the incontinence occurs in the day as well as by night, he had employed the tincture and extract of nux vomica, and occasionally strychnine, and though he could not boast of any great success in the treatment of such cases, yet, from the remedies just mentioned, he was certain that he had derived more advantage than from any other, and he had tried a host.

On one point the observations of Dr. Condie led to a very different result from those of Dr. Hewson; he alluded to the condition of the urine in children affected with enuresis. In thirty-two cases in which the urine was submitted to a careful and accurate examination, the saline ingredients, particularly the urates, as well as uric acid, were found to be deficient; there was an excess of the watery portion. This was more strikingly the case in respect to the urine of such of the children as were troubled with incontinence of urine by day and by night. Dr. Condie was induced to undertake the examination of the urine in consequence of the statement of Prout that in enuresis the urine contains an excess of lithic acid and its compounds. Willis had already, however, shown that the urine of those labouring under

enuresis is of lower specific gravity than in health, colourless and watery, and deficient in the characteristic animal ingredients. Others have noticed the same fact, and, in the cases where the urine is more copious than in children generally, and the calls to pass it are at all times frequent, and uncontrollable for even an instant, they have described the affection as an infantile insipid diabetes.

Inability to Distinguish Colours.—Dr. HAYS stated that he had recently met with a case of inability to distinguish colours, a brief notice of which might interest the fellows of the College. The case was interesting in two points of view: *First*, as it belonged to a class of cases of which but very few had hitherto been recorded, viz., in which the inability did not exist as a congenital defect, but was the result of disease; and, *secondly*, because it confirmed the law, pointed out some years since by the speaker, as existing in regard to these cases.

He had shown, 1st, that this defect may exist to such a degree that shades only could be distinguished, the individual having no perception of colour.

2d. In the next degree, the patient can distinguish only a single colour, and this is always yellow.

3d. In the next degree, the individual can distinguish two colours, which are always yellow and blue.

4th. In the next degree, the patient can distinguish three colours, and these are always yellow, blue, and red.

This was exemplified in the case of Mary Bishop, the particulars of which were recorded in the *American Journal of Medical Sciences*, for Aug., 1840, and confirmed by a comparison of numerous cases. (See *Lawrence's Treatise on Diseases of the Eye*, edited by the speaker, pp. 637–648, Phila., 1854.)

The subject of the present case was a man 35 years of age, who stated that, after an attack of fever and ague followed by violent attacks of colic, he had lost his sight. When he first began to regain this faculty he could only discern shades, but could not distinguish a single colour. As his sight improved, he noticed first the blue lining of his carriage, and some time afterwards was delighted to find that he could distinguish the pink lining of his coat.

When seen by Dr. H. he could distinguish three colours—yellow, blue, and red—but he was unable to state when he had regained his ability to distinguish the first, as that colour had not been presented to his attention. The three colours mentioned were the only ones he could distinguish; when a bright red and a bright green were placed side by side before him, he could not distinguish one from the other, but if one were of a deeper shade than the other, he readily detected this difference.

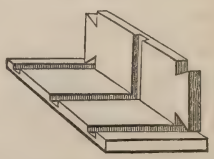
New Apparatus for Fracture of the Thigh.—Dr. HENRY HARTSHORNE made the following remarks: Having been indulged with the attention of the

College, in 1855, to the exhibition of an apparatus for the treatment of fractures of the femur upon an entirely new principle, it is proper now to state, that a full and sufficient trial of that apparatus has, since that period, educed the conclusion that an important practical difficulty exists in its use, which must interfere with its extensive employment. This difficulty is, the necessity of adapting the *counter-extending block* exactly to the person of each patient; which would require more skill and trouble than are likely in many instances to be available. This trial has not, however, nor have any other facts or considerations, afforded reason to doubt the correctness of the principles involved in the construction of that apparatus; namely, that, for treatment of fractures of the thigh, the apparatus should possess fixity and *firmness;* that the extension and counter-extension should be *in the same line;* that their amount or extent should be under *easy and exact control*, and that the *tuberosity of the ischium* is the centre of the most desirable region for counter-extension, as it is the best adapted, by structure and function, for continued pressure.

In examining the excellent report upon the treatment of fractures, by Dr. F. H. Hamilton, in the *Transactions of the American Medical Association* for 1857, we do not find, in the number of contrivances for fractured thigh there described and illustrated, any which meets fully the indications above mentioned. That which possesses, perhaps, the greatest amount of novelty, the invention of the Drs. Burge, of New York, is rendered comparatively unavailable by its complexity and expense; especially as it does not really remove all the inconveniences of the treatment.

While, therefore, the absence of an apparatus for the management of this important fracture, equally complete with those employed for fractures of the leg or arm, remains to be an opprobrium of surgery, it is obviously desirable that experiments and attempts should continue to be made, even if many successive efforts should meet with disappointment; as, thereby, one difficulty after another may be removed, and final success be rendered more probable. With this view, I venture to offer to the College, at the present time, another form of apparatus, distinct in some particulars from any in use. The excuse for not withholding its presentation until after its subjection to a full trial in actual practice, is, the long period which might elapse, with one not specially engaged in the practice of surgery, before the opportunity for such trial should occur.

Fig. 1.

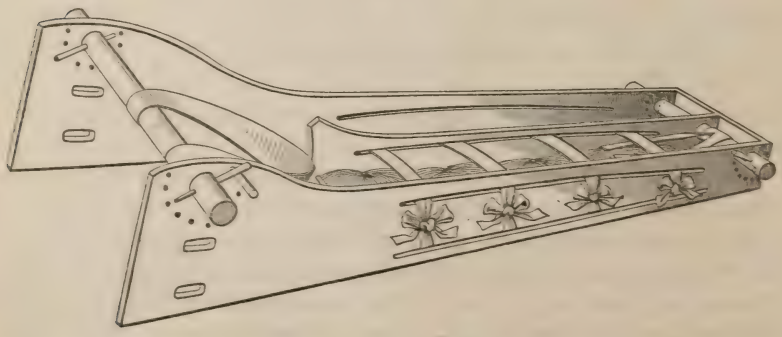


The apparatus consists (as exhibited) of two long splints, one of which is to be placed on the outer side of each limb, reaching from about the middle of the body to a distance of eight or nine inches below the feet, where the splints are firmly connected together by a foot-board having a bottom piece attached, into a groove in which each splint is made to slide, Fig. 1; the extension is maintained by means of a roller or wind-

lass, and adjusted by a pin at the side, as in the apparatus exhibited by me to the College in 1855 (see *Transactions of the Philadelphia College of Physicians*, October, 1855); adhesive plaster being the preferred material for the extending bands. For counter-extension, a similar bar or roller is made to pass from splint to splint at their upper ends (widened and elevated accordingly) *over the umbilicus;* the adjustment and control being arranged in the same way as with the extension, by means of a pin through one of the holes on the outside of either splint. The ends of the counter-extending band may be fastened at pleasure to any part of the upper roller; most desirably, however, at a considerable distance from each other, so that the force exerted may be in a direct line with the extension, and may act only upon the gluteal and tubero-ischiatic region. This mode of counter-extension, by means of a crossbar over the body, was familiar to my mind in 1855, but was deferred in use from the hope that the gluteal *block* might be more simple and convenient. Adhesive plaster may be readily employed upon the plan now described. Dr. D. Gilbert, of this city, has recently reported several cases (*Am. Journ. of Med. Sciences*, Jan., 1858) in which he has successfully used adhesive plaster for counter-extension, with Physick's modification of Desault's apparatus. I have also made use of it to a sufficient extent to be satisfied that the difficulty of employing it with that apparatus, without producing serious tumefaction and irritation, is great, on account of the *direction of the pressure*, involving the femoral vessels and lymphatics almost unavoidably. If, however, the direction of pressure is changed or reversed, as it may be in the apparatus now under description, no such inconvenience can prevent the success of the adhesive plaster, for counter-extension as well as extension; and this, I think, may be regarded as a considerable point gained.

With the usual strips of Scultetus, and a flat, wide junk bag under the whole limb, from *just above* the heel to *just below* the tuberosity of the

Fig. 2.

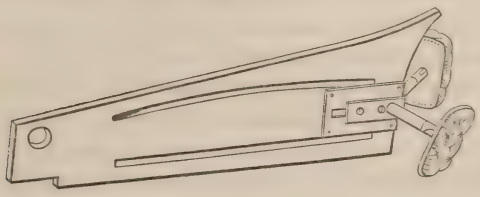


ischium, the apparatus may be viewed as, in its essential form, complete. But several additions may be still made to it, for particular purposes. A

middle splint may be easily affixed to the same foot-board and bottom piece above alluded to, so as to afford means of *lateral* fixation of the injured limb. A bandage, or a *splint of gutta percha* may also be passed through slits in the outer and middle splints, for the still greater security of the limb in its position.

Moreover, the middle splint may be made the medium of counter-extension against *both* tuberosities, by affixing to its upper end a fork (adjustable by a slide and screw) upon the end of each of whose branches is a pad, revolving freely so as to adapt itself to the part, Fig. 3.

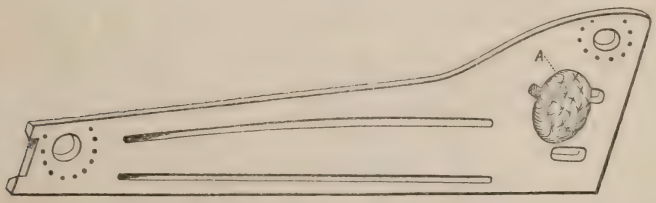
Fig. 3.



It is easy, also, if desired, to alter the method of counter-extension in any case, to that employed in Physick's Desault, by simply cutting holes in the usual position for them in the outer splint.

Farther still, we may adapt to this apparatus what appears to be the most original part of the apparatus of the Drs. Burge, viz: the arrangement for wedging the whole pelvis between two screws connected with the outer splints, and padded where they meet the outer surface of the ileum, Fig. 4, A.

Fig. 4.



By thus combining different elements, we have the opportunity, with the same apparatus, of using alternately *either of four* modes of counter-extension, viz: by the upper bar or roller, by the middle splint against the two tuberosities, by the perineal band of Desault, attached to the outer splint, and by the padded screws to fix the pelvis, as in the apparatus of the Drs. Burge.

Under such an alternation, or even with the counter-extension by means of the cross roller alone, it would seem impossible to fail in securing a sufficient degree of extension, without any risk of excoriation. The apparatus is, therefore, submitted to the profession, not without some confidence that it may answer a useful purpose, amongst, if not in place of the numerous

methods of treatment already employed. It may be added that, in its simplest form, the expense and difficulty of its construction are no greater than those of Physick's Desault, while the facility of application, and of retention in place, is much greater. The same apparatus may, also, with slight variation, be used for patients of considerable variety of size and figure; and is adapted to the management of fractures of the leg requiring extension, as well as to those of the thigh. For compound fractures, requiring bran dressing, &c., it may be converted into a *box*, by inserting a bottom between the outer and middle splint, on the injured side.

July 7th. Cancer of the Clitoris.—Dr. CORSE read the following:—

Early in July, 1857, I was called in consultation with Dr. A. O. Stillé to see Mrs. ———, æt. 66, who was suffering from a tumour in the upper commissure of the genital fissure. On examination, it was found to be about one inch in diameter, and attached centrally to the clitoris, and at its margin to the mucous membrane around. On inquiry, we learned that she had first begun to feel any inconvenience from it about a year previous. It was treated with caustics and entirely removed, or removed to such extent as to leave an excoriated ulcer where it had been attached; the ulcer did not heal kindly, but, after a prolonged treatment, began to throw out fungous granulations, which in time assumed the size and appearance of the original tumour. Excision was proposed, but deferred from time to time in the hope that an arrest of development in the tumour would take place. It was not long before the suffering from the incessant burning pain became almost intolerable, but an operation was not deemed advisable so long as the patient could get about and palliatives gave temporary relief. At length, the tumour increased to such a size that the patient was no longer able to walk, and was therefore confined to bed with the limbs distended. Her health now began to decline rapidly, and her constant suffering and helplessness made her an object of sympathy. Her family and friends entreated us to remove the tumour by excision, even if only temporary relief could be obtained, and in the belief that she could not be worse and live; we consented to remove it, and the operation was performed on the 24th of last May.

It had by this time grown to a considerable size and formed attachments all around the labia, and had pressed them so widely apart, that it was thought necessary to make the incisions in the sound parts beyond the tumour.

She was placed on a low bed in the usual position for the operation for stone in the bladder, and placed under the influence of ether, her hands being secured, one to each foot, as for the lithotomy operation. The incision was begun on the right side at the summit of the vulva and extended down to the perineum; a similar incision was made on the left side to the same extent to meet the former one. These rendered the mass movable enough to expose the extent of the attachment. The incisions were then deepened on each side to meet in the centre, excising the entire labia majora, minora, and

clitoris. The hemorrhage was very great, considering there was no large vessel cut, although it was not altogether unexpected, for oozing tumours always have a large supply of bloodvessels.

In the operation for amputation of the penis, it is said, in works on operative surgery, that seven arteries are to be secured, and the same number in the operation for excision of the clitoris; but often some of these bloodvessels are practically found to be small and not to need any attention whatever. In the present case, they were large and required attention. As soon as the tumour was laid aside, the usually small arteries seemed to be welling out on every side; tannic acid was freely applied to the whole cut surface, and promptly checked much of the hemorrhage; the larger vessels were then picked out and tied, and caustic applied to some of the more obstinate oozing, especially at the descending rami of the pubes, where the clitoris obtains its blood from the internal pudics.

The hemorrhage being stopped, the wound was dressed with cold water. She soon reacted, and no capillary oozing to any extent took place.

Next morning I found she had passed a tolerably comfortable night, more so than for a very long time.

The wound went on to heal kindly, and the patient is now walking about enjoying her regular meals and hours of repose, and very cheerful in spirits.

Dr. COATES added some particulars to the history of this case.

Dr. C. visited Mrs. D—— M—— for an irritable ulcer of the glans of the clitoris, fourth month (April) 4th, 1855, and, of course, three years and three months since. The whole glans was converted into an irregular set of flat bands, covered externally with the natural epithelium, and comprising within them deep, burrowing ulcers, lined by a thick, white, adhesive matter. There was no fungus at any point, and no hardening. The colour was a little brighter than natural.

The pain of this affection was excessively severe, greatly increased by walking, or by the contact of the clothing, and entirely embittering the unfortunate woman's life. He recommended cautery with nitrate of silver, and poultices of conium or hyoscyamus, to be exchanged for other narcotics. He warned her that, unless a very rapid improvement should become visible, it would unquestionably be her interest to have the glans extirpated. She was unwilling to undergo any treatment; and did not, as far as he was aware, at that time, ever make trial of the narcotics.

Cancer of the Neck.—Dr. CORSE reported the following case: Mr. ——, aged 70, applied to me in May, 1853, with a tumour on the right side of his neck, about an inch above the clavicle, and opposite the posterior border of the sterno-cleido-mastoid muscle. The shape of the tumour was fungiform, having a summit irregularly rounded and expanded. In size it was nearly as large as a hen's egg. Its base seemed to be attached not on but under the

skin, as if it had had its origin in a very small point, and by development dilated, for its attachment, an opening in the skin, which seemed rumpled or corrugated around the edges. It was movable, and seemed to have its attachment in the subcutaneous areolar tissue, and the base extended under the border to the extent of two or three lines, giving a purple hue to the integument to this extent.

Its whole surface was moist and constantly pouring out a sanguineous fluid, which exhausted the patient. The pain from it was incessant, and rather of a burning than a lancinating character. No refreshing sleep had been obtained for several months, and the short periods of repose were disturbed by paroxysms of increased pain. The appetite was gone from the continual irritation, and the family and friends could only anticipate a fatal termination at no distant period. An operation was requested for the removal of the tumour, and after duly considering all the circumstances, and making a prognosis unfavourable, the removal was determined upon.

An incision was made entirely around the tumour, outside of the diseased structure, through the integument, and the base cautiously dissected out. During the dissection, the tumour was found to be adherent to the external jugular, and could not be separated; this latter was, therefore, cut off, and a section of it removed along with the tumour.

Almost from the moment of the operation the general health improved, and the wound healed gradually without a bad symptom, and no great cicatrice was left.

The patient continued doing well until early this spring, when the cancer made its appearance again in the same place, and was slowly increasing when an attack of dysentery closed his life about three weeks ago.

The history of this case goes to show that the operation prolonged the life of the patient five years.

Gout.—Dr. Ruschenberger submitted to the inspection of the Fellows casts of the hands of a gentleman who had recently died of gout.

Both hands were very much distorted, and the fingers strongly directed to the ulnar side. The first and second phalanges of the right middle finger were enveloped in a gouty tumour, rising three-quarters of an inch perpendicularly from the bone, and about an inch and a half in its transverse diameter; the index and ring fingers were widely separated by it. The thumb was nearly immovable, and slightly turned inwards upon the palm.

Over the left metacarpo-phalangeal joint of the index was an ulcerated tumour, and another occupied the first and second phalanges of the left ring finger; it was not less than an inch and an eighth by an inch and six-eighths in extent. The palmar surface of all these fingers was distended by gouty deposits. The point of the left thumb rested permanently against the second joint of the middle finger, which was partly flexed. None of the small joints were free from this deposit, specimens of which were shown.

Dr. R. then read the following history of the case:—

M. J. B., native of Philadelphia, died April 26, 1858, aged 69 years and 11 months.

He had resided in Natchez from 1817 till the spring of 1841. He lived freely, but was never intemperate nor dissipated. The disease was hereditary.

His first paroxysm of gout occurred in February 1829, and was supposed to be a severe inflammation of the foot, consequent upon chafing it in a stirrup during a long and arduous ride. The treatment consisted in the local application of ice, evaporating lotions and saline purgatives. A second paroxysm in 1830 was recognized as gout. In the spring of 1833 he had a severe attack in this city, and was treated by a distinguished professor in the University of Pennsylvania. Another severe paroxysm was suffered in Philadelphia in the year 1838, when he was treated chiefly by copious venesection. In 1839 he was again attacked at Natchez. On that occasion the case was treated by tightly bandaging the limbs, and dry frictions with a hand, continued for hours without interruption.

Just after leaving Natchez in the spring of 1841 on a steamer, he was most severely assailed by the disease, and was put on shore at Louisville, Ky., where he was treated during six weeks with enormous doses of colchicum, from the effects of which, as it was supposed, he was very near dying.

From Louisville he came to this city by land, stopping some weeks at the White Sulphur Springs of Virginia, where he bathed in, but did not drink the waters. He was obliged to lie extended in his carriage during the entire journey.

He had moderate attacks every year, generally in the spring, and recovered from each more and more damaged in his powers of locomotion. The lithic deposits began from the first in the toes, ankles, knees and hands, gradually increasing. Three months before death they existed on the scrotum, on the ears and in the sclerotic coat of the right eye, as large as mustard seeds. Vision remained unimpaired, and, though he was a constant reader, never required the assistance of spectacles.

He first came under my professional care in October, 1841, and from that date while I was in the city, I visited him. During my absence he was usually attended by Professor Carson. He was also visited by Professor A. Stillé.

When I first saw him, his powers of locomotion were so much impaired that he did not leave his apartment, except at long intervals, when he was carried abroad in a carriage. Seventeen years were passed in his room, and the last ten years of his life were spent in bed.

In the commencement of 1857, he became unable to feed himself, and during a greater part of the year he was annoyed greatly by an eczematous eruption over the angle of the jaw and side of the neck, accompanied by intolerable itching. About the same period his appetite, which was usually good, began to fail, and in December he suffered almost daily from nausea

and vomiting. He was no longer able to turn himself in bed, and the skin over the sacrum became abraded.

The bowels were habitually and obstinately constipated, and the dejections were always scybalous. They were constantly more or less distended with flatus, and this was frequently a source of excruciating pain. At times he discharged per anum incredible quantities of odourless gas. No variation of diet seemed to increase, nor did any remedy abate this flatulence, which was invariably augmented prior to a severe paroxysm of the disease.

A very great variety of laxative and purgative medicines were administered to obviate constipation, but no one of them or combination of them was satisfactory. In March, 1853, the following was prescribed, and met the requirements of the case so well that the patient preferred its operation to that of any laxative or purgative he had ever taken. These pills were used once, twice, or even thrice a week, during five years: ℞.—Colchici ext. acetic., Nucis vomicæ ext., āā gr. xxxvj; Potassæ bicarb. gr. xxiv; Tiglii olei ♏vj; Hyoscyami ext. gr. xlviij; Colocynth ext. comp. ʒij.—M. s. a. Ft. mass. in pil. xlviij dividend. S. One or two at bedtime.

Pain was almost constant. He found relief only in the use of opium, of which he took daily, for about eighteen years, from two to four grains, but never exceeded that quantity. He was a moderate chewer of tobacco, and drank about a fluidounce of whisky, largely diluted, every day after dinner.

The organs of respiration and circulation were never attacked. The last weeks of life were most painful. The stomach was irritable, except only when for a few hours in the day or night, he suffered severely in the joints. There was subsultus tendinum during five days; the gouty deposits were made to glide over each other by the jerking tendons, and suggested a notion that one was holding in his hand a small bag of moving marbles or large shot.

His intellect remained clear until within two or three hours of his decease, when he complained of pain in the head. The superorbital region presented suddenly an intumescence as large as a pigeon's egg, and then all evidence of consciousness was lost. His arms were tossed to and fro actively, almost until respiration ceased.

The parietes of the pouches formed about the small joints and beneath the toe nails by the lithic deposits, gradually ulcerated and gave exit to their contents. Small amorphous masses, the size of a pea and sometimes larger, of this mortar-like concretion, were often removed by the aid of lancet or probe, affording very great relief to the patient. These ulcers were exquisitely sensitive. Some of them were healed after discharging during three or four months, but simultaneously with their closure, other like fountains were opened either upon the hands or feet, which poured out tiny streams of globules that were often compared to those of a soft and broken shad-roe.

In the early years of the disease from which he suffered twenty-nine years, his temper was irritable and sometimes violent, but during the latter ten or twelve years, he so controlled it that no expression of impatience escaped his

lips even while in agony of pain. This power of self-control his friends attributed to a conviction and abiding faith in the truths of Christianity as taught in the Presbyterian Church.

My friend Dr. Bridges has examined the matter deposited, and ascertained that it is constituted of uric acid and soda.

Typhoid Fever without Tympanites.—Dr. LEVICK remarked that most medical men must have noticed the difficulty of forming a positive diagnosis in the early stages of idiopathic fevers. Dr. Bennett, in his recent work on clinical medicine, goes so far as to say that "in practice it will be found impossible to distinguish the varieties of continued fever before the twenty-first day." This difficulty is of course increased by the absence of what are described in the books as the characteristic phenomena of each form of febrile disease.

A tympanitic condition of the abdomen is acknowledged by all writers on the subject to be an almost constant attendant of typhoid fever. Beginning as a slight meteorism towards the close of the first week, it sometimes increases to such an extent as to interfere with the respiration, and very much to add to the discomfort of the patient.

A case of typhoid fever was then under care in the Pennsylvania Hospital, in which this symptom had been entirely absent. The case was, with this exception, a well-marked one of this fever. The patient was then in the third week of the disease; the surface of the abdomen and lower part of the thorax presented numerous characteristic lenticular red spots, which disappeared on pressure; while the abdomen, instead of being prominent, was so flattened that a line drawn from the spinous process of each ilium left a marked concavity beneath it. There had been but little diarrhœa, but the bowels were promptly affected by small doses of laxative medicine.

Dr. COATES said, that at the time of his attendance in the Pennsylvania Hospital, the external duties of the institution, and other unavoidable demands on his time, were such that recording and numerically abstracting cases were out of the question. He well recollected seeing cases of undeniably dothinenteric typhoid fever, having all the other symptoms, and running the usual course of the disease, in which, however, the abdomen was not salient. He was confident of the existence of two such instances.

As meteorism is a physiological symptom, and must depend, for its amount and extension, on the degree of irritability, and on the size and proportions of the organs, it seemed accordant with sound reason that the mere fact of the abdomen projecting, in the prostrate position, beyond lines drawn from the anterior point of the costal cartilages to the spinous processes of the ilium, should not be considered essential to the presence of the affection in question. In the cases alluded to there undoubtedly existed distension of the intestinal tubes with gas, though not sufficient to cause the projection thus defined.

Dothinenteric typhoid fever may occur to an extent comparatively very moderate, and yet be fully identified. One case, during the above described period, went through a well-marked course in eleven days. It was indicated by slow approach, general debility, moderate meteorism, pain in the abdomen near the umbilicus, tenderness in the right iliac region, eruptions of both kinds, diarrhœa, some bronchitis, and some emaciation. The disease being mild, the loss of strength and flesh was not excessive.

Exhaustion from Heat (Sun-stroke).—In reply to a question on the subject from Dr. Bell, Dr. Levick made the following remarks upon some cases:—

From the 26th to the 29th of June, inclusive, there were six persons admitted into the Pennsylvania Hospital suffering from the effects of heat, or, as it is popularly known, from sun-stroke. The thermometer (Fahrenheit) in the shade indicated a temperature of 94°; while under exposure to the rays of the sun, the heat was intense.

The first patient admitted was a German, æt. 22 years. He had been at work for ten hours in a sugar refinery, boiling sugar; had been in good health until late in the afternoon, when he became giddy, fell, and was brought to the hospital in a state of insensibility. When admitted, he had a feeble and frequent pulse, and was with much difficulty made to swallow. The treatment consisted in the exhibition of ammonia, the application of ice to the head, the use of strong mustard foot-baths, and injections of turpentine. Next morning his intelligence had returned, and his recovery was rapid.

Two men were brought late in the afternoon of the following day. They presented symptoms almost identical, and may be described together. They were large and robust Irish labourers, about 35 years old, had been at work on the railway, fell over insensible, and were brought at once to the hospital. When admitted, the skin was warm, but not of that pungent heat which is sometimes noticed; the head hotter than the body; pupils somewhat dilated; pulse 130, and scarcely to be counted; respiration stertorous, and mingled with tracheal râles; the heart acting rapidly, but its sounds feeble; deglutition impossible. *Treatment.*—Strong mustard foot-baths, cold to the head, stimulating injections. Both died two hours after admission. An attempt was made, ten hours after death, to make an examination, but putrefaction had already occurred to such an extent as to render it impossible.

Case 4 was a captain of a small vessel on the Schuylkill River; fell over, was bled, and then brought to the hospital in a state of incomplete unconsciousness. *Treatment.*—Cold to the head, mustard foot-baths, and injections of oil of turpentine. This patient's recovery was a rapid one, and he left the hospital five days afterwards. On the following day he died suddenly, out of the house; but nothing could be learned of the nature of this attack.

Case 5. A Cuban, aged 28 years, a seaman, was admitted late in the afternoon. As was subsequently learned, he had walked from Richmond (in the upper part of the town), with mats for sale; that he felt giddy, things looked

blue around him, and he fell over insensible. He was picked up in Washington Square, and brought in this state to the hospital. *Condition at time of admission.*—Skin warm, not hot; head warmer than trunk; pupils contracted; pulse 120 to 125; respiration sighing and moaning; deglutition impossible, liquids put into his mouth passing into the larynx. *Treatment.*—Cold to the head, mustard foot-baths, injections of oil of turpentine (f℥j) every half hour. Under this treatment a gradual improvement took place, and on the following morning he had so far recovered as to give the above account of himself. Two years before, he had had a similar attack while in Callao. After this, the improvement was rapid, and he left the house four days later.

Case 6. A seaman, aged 23 years, born in Ireland; admitted a few minutes after the last-named patient. *Condition at time of admission.*—Complete mental unconsciousness, with total inability to swallow; skin moderately warm; pupils nearly natural; pulse frequent and feeble. *Treatment.*—Same as preceding case. On the next morning his intelligence had returned, and he gave the following history of himself: He had walked from Fifteenth and Lombard Streets to Market Street wharf, felt some headache, then walked up Chestnut Street; became dizzy, felt as if drunk, then became insensible. This occurred at about 5 o'clock P. M.; an hour later he was brought to the hospital. He left the house, at his own request, four days later, entirely well.

Besides the above, six more patients were brought to the house as cases of sun-stroke. Two of this number were young hysterical women. In both instances they had walked a great distance, and had fallen insensible. The first of these presented so many of the symptoms of sun-stroke as to have been largely bled before she was brought to the hospital. Under the treatment above mentioned, her recovery took place, though but slowly. The second presented but few alarming symptoms, being a case of hysterical convulsions, in which the heat and fatigue seemed to be the exciting cause. A third case was that of an epileptic patient, whose attack was an unusually severe one, and was attributed by his friends to a long and fatiguing walk in the heat of the day. The fourth and fifth were cases of sun-stroke, occurring to labourers, under circumstances similar to those before mentioned, and presenting similar phenomena. Both of these recovered under the treatment already mentioned.

The last of the cases alluded to was a lad, æt. 17, employed on a canal-boat. He had been engaged during the morning in unloading coal at a wharf in New York, while doing which he complained of pain in the head, and fell over in a convulsion. He remained in a state of stupor, and was brought to Trenton in the canal-boat, unprotected, and thence by railway to Philadelphia. At the time of his admission he was in a semi-stupid state, but could be roused with some exertion. He had at this time ptosis of the right eye, with occasional delirium and other symptoms of inflammation of the brain, for which latter affection he was put under the use of calomel, in small and repeated

doses, blister to the nape of the neck, &c. After death there was found extensive inflammation at the base of the brain.

There are two or three points of interest in the preceding cases, which may be briefly alluded to. It will be noticed that in all of these the attack occurred in the latter part of the day—from four to six o'clock P. M.—at a time when the exhausting effects of prolonged labour were likely to be most felt. With but one exception, and that by no means a positive one, every man was a foreigner. The subjects of these attacks were not, as might be supposed, persons enfeebled by age or previous sickness. Their ages varied from 17 to 40, the majority being between 20 and 30 years of age.

While the results were somewhat satisfactory, it would lead to false inferences were all the cases reported classed with those of sun-stroke, the mortality of which is known to be so fearful. Of the first six cases reported, it will be noticed, two were moribund at the time of their admission. Cases 5 and 6 were of the gravest character, genuine cases of sun-stroke, with the absence of one symptom which is justly looked upon as highly alarming—a hot, pungent skin. Cases 1 and 4 were of a very serious character, though not quite to the extent of those just mentioned. Of the remaining cases, two were well-marked instances of sun-stroke; while three, occurring as they did in epileptic and hysterical persons, can afford no information as to the ordinary phenomena and results of the disease.

So far as the pathology of the affection is concerned, we may at once say that the cases before us, with one exception, coincide in representing it to be a condition of exhaustion, rather than of stimulation or cerebral congestion. The last case would tend to confirm the received opinion that different conditions may result from the same cause, in this instance terminating in cerebral inflammation, in the others in nervous exhaustion. For these different conditions different modes of treatment are required, and the diagnosis of the two becomes a matter of the utmost importance; but there can be no doubt in the minds of all whose opportunities for observing such cases have been frequent, that in *by far the greater number of cases of sun-stroke it is depression, not excitement, which we are to combat.* To have bled in any of the cases mentioned, would have been worse than useless, even the case of cerebral inflammation having never been in a condition to permit the use of the lancet while with us.

The treatment adopted presents but little novelty. Stimulating enemata, where deglutition is impossible, have been long resorted to, but it is worthy of consideration whether there may not a special value attach to the spirit of turpentine in these cases. It is, to say the least, an interesting coincidence that the remedy which has been found of value in malignant fevers should be used with advantage in this disease, in which the blood presents after death much the same character as it does after typhus.

If one principle were more insisted upon than another in the treatment of these cases, it was the importance of avoiding any expenditure of the little

remaining strength of the patient. With this view the foot-tub was placed in the bed, the patient remaining on his back. Though recommended in such cases, the full bath is not without danger. The chief indication for its use is in the stimulus afforded by the *hot* bath, for which in practice the *warm* bath is too often substituted. The removal of the patient to the bath-room is rarely effected without some exertion or resistance on his part, while the depressing influence of the *warm* bath may fatally exhaust the forces which barely maintain the balance between life and death. For these reasons none of the preceding patients were put in the bath.

It is somewhat surprising that so little has been said or written on this subject, for, excepting on the field of battle, it is rare that persons are in such numbers so suddenly and so hopelessly struck down while in the vigour of health, of strength, and of youth.

Dr. CARSON said, that in the summer of 1830, while he was resident physician in the Almshouse Hospital, he observed a number of fatal "cold water" cases, as they were then called, which all appeared to be rather cases of exhaustion from heat and rum drinking than from the sudden imbibition of pure cold water. The great heat of skin was characteristic. These patients were, all of them, broken down from intemperance and bad living, and came from a very bad neighbourhood. The mortality among them was great.

Dr. T. H. BACHE stated that during the summer of 1853, while resident-physician at the Pennsylvania Hospital, he had attended a number of sun-stroke cases, and that the mortality was very great, hardly a single case recovering. The treatment adopted was a stimulating one; but, prior to admission, some of the cases had been bled.

When allowed by the friends, *post-mortem* examinations were made, and the pathological appearances noted at the time. He could not recollect the precise lesions observed, but might at a future time give an abstract of them to the College. One thing, however, he did remember; and that is, that they did not confirm the statements made by Drs. Pepper and Reed (vide *Trans. Coll.*, vol. iii. p. 100), in regard to softening of the heart.

Dr. BELL remarked, that cases of illness from heat might and did occur, which could not be fairly denominated sun-stroke. These cases might have symptoms of excitement, and might bear bleeding without serious injury. He referred to one instance in which free venesection had been ventured on, and yet the man recovered. Dr. Bell also related an instance of the rapid decomposition after death, which had been mentioned as characteristic of sun-stroke.

Dr. COATES well recollected the time when cautions against sudden death from excess in drinking cold water while the body was excited, and during the intense heats of summer, were thought of so much consequence as to be posted, by order of the Humane Society, on the pumps designed for public use throughout the city. Between 1814 and 1819, while he inhabited the Pennsylvania

Hospital, persons alleged to be suffering from this cause were frequently brought to the institution. They were, in nearly or quite every instance, visibly under the influence of ardent spirits; the remedy then advised by authoritative men and the employment of which was warmly seconded by tavern-keepers. It was the unanimous conviction of those who attended them at the hospital that their symptoms indicated disease of the brain, and, probably, congestion, rather than the spasmodic affection of the stomach described by Dr. Rush. This last, however, he had seen, but in very few instances. The cephalic cases received little other treatment than rest, silence, a gloomy room, cold to the head, mild stimulants to remote parts of the skin, laxatives, and a cool, abstemious, and sedative diet. The impression on his mind was that there was almost entire success. He had not examined the hospital records on this point, but he had no clear recollection of any death in such a case. Their patients of this class were generally young and in the vigour of life.

It had often struck him how exact a reverse to what might have been expected really took place when the use of ice became popular in Philadelphia. When the luxury was first made abundant and cheap in our city, the greatest terror of destructive effects from excess in its use by the young, ignorant, and imprudent, was almost universal; and the newspapers were thickly bestrewn with remonstrances against the imagined frequency of suicide by ice cream. Thus, while cold refreshments were few and moderate, they were charged with the production of sickness and with manslaughter; while, since they have become abundant and really excessive, the danger appears to have been forgotten.

August 4. *Foreign Body in the Ear.*—Dr. CORSE read the following report of a case of this:—

A little girl, aged 7 years, daughter of Simon King, was brought to my office with something in her ear. She had been to several physicians already, and the meatus auditorius externus was swollen, bloody, and inflamed. On examination by speculum, I was at first inclined to the belief that the parents were mistaken as to the existence of a foreign body in the ear; but they assured me that the object had been distinctly seen, and the little girl said it was a stone.

On further examination by means of a probe, I could feel a hard body at the bottom of the canal; and on further inquiry, I was informed that her ear had been pulled at very much, and that a considerable amount of blood had flowed from it. I then supposed the membrana tympani to have been ruptured, and that the hard body felt was the petrous portion of the temporal bone, for the probe did not cling to it as to a stone, or bone denuded of its periosteum. I have since been led to suppose that the slippery feel was due to blood coagulated or encrusted on the stone. I made efforts to move the body with a probe, but it was immovable. After a close and attentive examination, I was unable to make up my mind satisfactorily as to the precise

nature of the case. The patient having a furred tongue and constipated bowels, I directed a purge and other treatment to keep down inflammation, and ordered the ear to be gently syringed several times a day with luke-warm water, requesting her to return to me the next day.

On their return, they informed me that a stone had been put into each ear while at play; and on examination of the other ear, I found truly a hard white body near the middle of the meatus. I cautiously tried to get a pair of forceps on it, but it constantly slipped from the grasp, and was soon at the bottom of the meatus. Mortified with my failure, I ceased my efforts, and directed the parents to return the next day, to continue the antiphlogistic treatment of the inflamed ear, and do nothing at all to the other one.

I was satisfied there was a foreign body, hard and round, in the ear, which filled the canal, or so nearly filled it that no forceps I was acquainted with could pass down on each side; it therefore became necessary to adapt some instrument to the case, and I drew a diagram of this instrument, which Mr.

J. H. Gemrig, surgical instrument maker, Eighth Street, below Chestnut, has made for me. It consists of two blades and a fulcrum, the latter being separable from the former. Each blade should be $2\frac{5}{8}$ inches long, $\frac{3}{16}$ of an inch wide, and laterally curved so as to form a segment of a cylinder $\frac{1}{4}$ of an inch in diameter, in order that it would apply to the sides of the auditory canal. The blades should not be more than $\frac{1}{4}$ of a line in thickness. At first glance, this may seem too thin; but when the cylindrical shape is remembered, it is easy to perceive that the strength is thus greatly increased, while the small space we have to operate in renders a thick blade entirely useless. There should be a slit in each blade, at the outer end, $\frac{3}{4}$ of an inch long, and $\frac{1}{2}$ a line wide, for the shank of the button on the fulcrum to slide in. The fulcrum must be adapted so as to be movable, and have a button on each side adjusted to the slits in the blades, and thus secure them, as well as operate as a fulcrum. It must be $\frac{3}{16}$ of an inch in diameter, in order to separate the outer ends of the blades, and at the same time close the inner ones, and by this means more effectually clasp the foreign body. The blades ought to be graduated, in order to know how deep they can be inserted, lest they be pushed through the membrana tympani.

In using this instrument in very difficult cases, a blade must be applied anteriorly first, because the anterior side of the canal has a slight convexity, which makes it necessary for the outer end of the blade to be thrown strongly back, in order for it to pass the foreign body if large; then, by straightening it up, the body will be somewhat moved from the membrana tympani, and the danger of injury to it avoided. The other blade may then be applied posteriorly, and not pushed quite as low down as the first one. The fulcrum

may then be applied; and to do so, the ends of the blades must be separated, and the fulcrum laid in the hollow and slid down until the buttons are locked in the slits on each side; then making pressure in the middle, with a gentle to and fro movement, the body may be withdrawn.

In appreciating the utility of this instrument, the shape of the cavity must be referred to. The meatus auditorius externus is described as an ovoidal canal about one inch long and three lines in diameter, part bony and part membrano-cartilaginous, and curved. It is somewhat constricted in the middle, and lined throughout by a membrane, which crosses the internal extremity obliquely and closes it, and constitutes the membrana tympani. The external extremity of the canal is overhung by a part of the external ear. It will be readily perceived that a foreign body of any considerable size, that passes the middle of the canal, will be much more difficult to remove, on account of the narrowing in the middle.

Dr. COATES remarked upon the difficulty, and the best mode of extracting foreign bodies from the meatus auditorius. The danger of injuring the membrana tympani rendered all instrumental interference more or less objectionable. He had thought that quicksilver might be employed with caution for the purpose; and he would now make the suggestion, as one of an expedient, at least, worth the trial. A small quantity only should be used, just enough to float the intruding body, without injuriously pressing on the membrana tympani. The only objection that he was aware of, was the possible existence of an opening in the membrane. Such an opening, however, would rarely occur; and might generally be suspected, when present, from previous symptoms which would be ascertained by inquiry.

Dr. CORSE thought that the quicksilver might answer for living insects, and for bodies not firmly impacted. He had removed the latter, and dead insects by means of strong jets of water from a good-sized syringe with a very slender nozzle, in the usual way. Insects, however, on account of the insufferable noise and pain occasioned in the ear, are generally killed with oil, and in dying fasten themselves with their claws, so as to be not easily detached. The quicksilver would be apt to fail in such cases. Dr. CORSE then dwelt at some length on the difficulties in the efficient use of the ordinary instruments.

Uterus taken from a Patient who had died, of Acute Disease of the Brain, whilst Menstruating.—Dr. W. W. GERHARD exhibited this specimen, and gave the following particulars of the case:—

Elizabeth Cook, æt. 25 years; English; married 7 years ago; has had two miscarriages and one still-birth; subject lately to menorrhagia, the discharge returning profusely every two weeks. She died of apoplexy, in the Pennsylvania Hospital, during one of her menstrual periods.

He was indebted to Dr. PACKARD for the following statement relative to the post-mortem appearances of the part exhibited:—

All the sexual organs were greatly reddened, especially the uterus, the left ovary, and the left Fallopian tube, which latter presented an enlargement near its fimbriated extremity. The inner surface of the uterus was of a very bright red colour, and the orifices of its follicular glands very perceptible; the mucous membrane seemed also to have a finely papillated or villous character.

The epithelium, being scraped off and examined under the microscope, was found to consist of a mixture of columnar and squamous cells. No evidence of any new formation could be detected.

The left Fallopian tube, carefully slit open from one end to the other, contained, in the dilatation above alluded to, a quantity of dirty red, grumous liquid, which, under the microscope, was found to consist of the ordinary ciliated columnar epithelium of the tube, and of masses of corpuscles, resembling nuclei; the form of the masses was very irregular, depending entirely upon the position assumed by the corpuscles.

At several points on the surface of each ovary, there were minute dots, like orifices, each one corresponding to a Graafian vesicle. Two of these being laid open, their contents were examined under the microscope, and found to present a few granular nucleated cells of considerable size, floating in a homogeneous liquid. Patches of extremely delicate squamous epithelium were found in the scrapings of the lining membrane of the vesicles.

Cancer and Abscess of the Liver.—Dr. LEVICK exhibited the liver of a woman, æt. 35, who had died a few days before in the Pennsylvania Hospital. She had been a nurse for many years, and was admitted into the hospital on the 26th of June. She complained, at this time, of a dull, dragging pain in the lower part of her abdomen, which she had suffered more or less from, since last Christmas, previous to which time, she said her health had for the most part been good. She was but moderately emaciated, pale, but not jaundiced. There was complete dulness, on percussion, over the entire region of the abdomen, which latter was tense and painful under strong pressure.

The ointment of iodine was applied to the surface of the abdomen, and the patient ordered quinine and nutritious food. A few weeks later, she was attacked with an eruption of large pustules, which appeared in such numbers that the whole body was covered with them, and the patient died, worn out with the exhausting effects of the discharge and suppurative fever accompanying it.

After death, the liver was found to occupy almost the entire cavity of the abdomen, measuring, as might then be seen, 19 inches in its vertical diameter, and 16½ inches transversely. A tape encompassing it longitudinally measured 30¾ inches, transversely 29½ inches. Its weight is 9¾ lbs.[1] It might be seen

[1] The ordinary measurements, as given in the books, are—vertical diameter about 7 inches, transverse diameter 10 to 12 inches, weight from 3 to 5 pounds.

to be studded with masses of medullary cancer, varying in size from a pea to a large orange, presented a mottled nutmeg appearance, and was of a lighter colour than the natural hue of the liver. The surface of the organ, when first removed, imparted a sense of fluctuation to the finger, and the right lobe, when opened, was found to contain an enormous abscess, filled with fetid pus. A similar abscess, though smaller, was found in the left lobe. Cancerous masses existed in the pancreas, and a cyst, containing nearly a pint of fluid, was attached to the left ovary.

SUMMARY OF THE TRANSACTIONS

OF THE

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

FROM SEPTEMBER 1, 1858, TO FEBRUARY 2, 1859, INCLUSIVE.

1858, *Sept.* 1. *Intermittent Lochia.*—Dr. CORSE read the following account of a case of this affection:—

I attended Mrs. J—— in her confinement, which presented no unusual symptom; the delivery was effected in what is usually considered to be a favourable manner. After delivery, the secretion of milk was established on the third day, with a slight chill and a smart fever, familiar in the lying-in chamber under the name of milk fever. Upon its subsidence, the breasts filled with milk, and lactation was comfortably established.

Coincident with the gush of milk, the lochia underwent the usual diminution in quantity and change in quality from deep red to pale; and in the course of four or five days the sanguineous character had almost disappeared, leaving the usual straw-coloured or yellow discharge. On the eighth or ninth day, at 9½ o'clock A. M., the patient was seized with great pain in the lumbar region; this, in the course of half an hour or a little more, extended down the sacrum to the coccyx, and then a gush of blood or bloody discharge took place, which continued to flow as long as the pain lasted, which was nearly an hour; it then ceased with a subsidence of the pain.

I was immediately sent for, but did not reach her until after the pain had left and the flow ceased. The pulse was good, tongue clean, and all appearance of a comfortable and safe state presented.

The next day, at the same hour, the same symptoms came on, and ran the same course. I was again sent for, but only got to the patient in time to learn the history of a paroxysm in no respect different from the preceding; and seeing no indication for medicine, I gave none.

The third day I was again sent for, and was too late again; but, on my arrival, heard a repetition of the story, describing a paroxysm which ran precisely the same course. I made a very particular inquiry into all the attending circumstances—sleep, food, discharges of bowels, bladder, etc. All was perfectly satisfactory.

Next morning I called just after the time when the paroxysm should

come, and found her suffering great pain; the pulse not disturbed; tongue clean; surface normal in temperature; facial aspect exhibiting pain, but colour unchanged; nothing of the pallid cheeks and purple lips common in ague; hands and feet of usual temperature; in short, nothing but her words to indicate disease, except the sanguineous discharge from the vagina. A per vaginam examination did not reveal any change whatever in the uterus; it was not tender to the touch, swollen, or hot. The os was patulous to the extent that is usual from the eighth to the twelfth or fourteenth day after delivery. There were no inflammatory symptoms in the uterus or adjacent parts; the vagina was soft, moist, and cool; no mechanical obstacle to the exit of the lochia was observable; the character as well as the quantity of the discharge was totally changed during the paroxysm. The case, to me, being new, left me to speculate as to its nature.

I began my investigation by inquiring into inherited peculiarities, idiosyncrasy, and previous diseases. I thus learned that about a year ago she had spent some weeks, during the summer and fall, a short distance below Salem, New Jersey, and there had had the chills; she had been quite cured, however, and had not had them since. This brought to mind two cases of dysentery, formerly under my treatment, in which the dysenteric symptoms returned at regularly recurring periods. The first was a quotidian, which ran on nearly a week before I awakened to a knowledge of its nature; the other was a tertian; both of which were treated with antiperiodics, and both yielded to the treatment. I therefore, after closely inquiring into the state of the general organism, considered it expedient, in the absence of any special contra-indication, to apply the antiperiodic plan of treatment to this case.

It is well known that the puerperal state is one that contra-indicates very active treatment of any kind, and especially of stimulation or excitation. Inflammation of the uterus, puerperal mania, or meningitis, might be brought on or occur coincidently, therefore I adopted a moderate course to begin with. Eight grains of quiniæ sulphas, with one grain, each, of opium and ipecacuanha, were made into four pills, and one given every hour, beginning at 5 o'clock A. M.; by this plan all of them were to be taken by 8 o'clock A. M., one hour and a half before the paroxysm.

My next visit being made after the period for the usual diurnal attack, I found the patient comfortable and cheerful, and learned that the discharge was diminished in quantity and the attendant suffering greatly ameliorated. Not a single unpleasant symptom had been caused by the quinia; I therefore increased the quantity to twelve grains, which, with one grain, each, of opium, and ipecac., I had made into four powders, and gave one every hour, beginning, as before, at 5 A. M. On my next visit I learned that the patient had missed both pain and discharge. I then ordered twelve grains of quiniæ sulphas, to be divided into twelve pills, one to be taken every hour, beginning at 5 A. M., until four should be taken each

day. This terminated the treatment without any unpleasant symptom as the result, the patient having ever since continued well.

Oct. 6. *Large Dose of Opium taken by a Child, without Fatal Consequences.*—Dr. HAYS related to the College the particulars of a case in which a child, not quite six years old, was given a powder containing seven and a half grains of opium with the same quantity of prepared chalk (the former having been, by mistake, substituted for rhubarb, which had been ordered). Dr. H. did not see the patient until fourteen hours after the powder had been administered. He was told that the child, after taking the medicine, had seemed much excited; this was followed by restlessness and drowsiness, which continued at the time of Dr. H.'s visit. No vomiting had taken place. The narcotism was at no time very profound; it gradually wore off, and at the end of three days had entirely disappeared.

Drs. CONDIE, GRISCOM, and PAUL mentioned several cases in which large doses of laudanum had been taken by children without serious mischief.

Nov. 2. *Vesico-vaginal Fistula.*—Dr. R. K. SMITH read the following report of a case of vesico-vaginal fistula successfully treated, by D. HAYES AGNEW, M. D., of Philadelphia:—

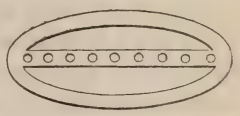
Frances Hargraves was admitted into the Philadelphia Hospital, Blockley, suffering from a vesico-vaginal fistula. The following account of the accident was obtained from the patient: In January, 1858, she gave birth to a child. Her labour was exceedingly difficult and prolonged, to aid which ergot was freely administered by her medical attendant. After delivery, for several days, she found herself unable to pass urine; which continuing to accumulate, and not being relieved by instrumental interference, she suddenly felt a large gush of water escaping from the vagina, since which time her urine has continued to flow by this route. Calling the attention of her physician to this condition of things, he suggested the necessity of an operation for her relief, which was accordingly performed in May, 1858. This failing, a second one was tried two or three weeks subsequently, with a similar result. The operation adopted was, I presume, that of Dr. Sims, with the button of Bozeman, as she described the employment of silver wires and a lead plate. Since the accident, she informs me, she has never menstruated; but alleges that, when the period comes round, a very copious flow of urine takes place, and continues for two or three days. About the 1st of July I was invited to see her by Dr. Robert K. Smith, the present chief resident physician of the Philadelphia Hospital, and, in company with himself and Dr. Elwood Wilson, made an examination. An extensive transverse rent was discovered, extending from one side of the vagina to the other, certainly one inch and a half in extent. Through this protruded a large amount of thickened and inflamed mucous membrane of the bladder, and along its edge the marks of

the old sutures were quite visible. At the suggestion of Dr. Smith, and her own earnest entreaty, I concluded to attempt her relief by another operation. As the last, however, had been done only three weeks previous, it was deemed most prudent to delay any efforts of the kind for six or eight weeks. The edges were soft, extensible, and deficient in callosity or density, which showed that they had not fully recovered from the recent attempt to cure. There was evidently not sufficient resistance in the tissue to maintain the tension of sutures for any length of time. To favour the desired condition, the parts were directed to be brushed over with a strong solution of tannic acid in glycerine every day. On the 23d of August I proceeded to operate, in the presence of Drs. Smith, Wilson, Levis, McClellan, Darby, Nichols, and the internes of the house. The bowels having been previously well emptied, the patient was thoroughly etherized, and, being supported on her breast and knees, lever speculæ were inserted along the lateral and posterior walls of the vagina, and the parts drawn well asunder; the edge of the fistula was seized by a pair of rat-toothed forceps, drawn well down, and pared by means of a long-handled straight bistoury. The greatest difficulty at this stage of the procedure was in freshening the angles of the wound, in consequence of the obstinate protrusion of large folds of the vesical mucous membrane. Succeeding, however, to my satisfaction, nine needles armed with sutures of fine silver wire were introduced by means of a forceps admirably constructed by Mr. Gemrig for this purpose, the two ends of which wires were brought out of the vagina and given in charge of assistants. These were next passed through a lead plate or button, having in it a number of holes corresponding to the sutures, and modified for reasons which I shall presently state. This being accurately adjusted, and the wires well tightened, pellets of shot were slipped down over each to the button, and firmly compressed by a pair of strong dressing-forceps, thus securing my ligatures in position. The long ends of the wires protruding from the vagina were well wrapped with adhesive plaster, to prevent excoriation, and a catheter was carried through the urethra into the bladder; the patient was placed on her side, an anodyne being administered, and a diet of arrowroot and cream ordered. She was then left in the care of Dr. Cowsins, one of the resident physicians of the house, to whose careful and judicious management I owe much of my success. The whole operation consumed about two hours, and though she was kept completely under the influence of the anæsthetic, with her head and trunk dependent, no inconvenience whatever was experienced, not even the ordinary nausea. It is unnecessary to give the notes of this case as kept from day to day, nothing of any interest having occurred until September 1. It is sufficient to say that her bowels were kept confined by the exhibition of a pill night and morning, containing a quarter grain of opium, the catheter was removed daily and cleansed, and the position on the side was carefully maintained. No constitutional disturbance whatever occurred,

very little local soreness was experienced, and no leakage discovered from the vagina. On Wednesday afternoon, September 1, being ten days after the operation, I proceeded to remove the plate and sutures, in the presence of Drs. Wilson, Levis, McClellan, and Richardson. The shot were clipped, the button withdrawn, and the wires severally picked out, when we had the pleasure of learning that complete union had taken place. As a precautionary measure, the catheter was allowed to remain for eight days longer, and the patient confined to bed on the side. On the twelfth day her bowels were gently moved, and again locked up for five or six days. Ten days after the removal of the ligatures she was allowed to walk about.

Remarks.—It will be seen from the above details that the operation in this case was that of Dr. Sims, varying only in the employment of the Bozeman button as modified by myself. To that modification I am disposed to attribute the success in this particular case. The proneness of the mucous membrane of the bladder to project through a fistula into the vagina I suppose has been noticed by every one who has seen a case of the accident. When the ordinary button is used, it is impossible for the surgeon to determine whether a portion may not have insinuated itself between the edges which he is approximating, and thus defeat the desired union. I think this may explain the failures which often occur. To obviate the possibility of such an occurrence, I requested Mr. Gemrig to make me such a button (lead) as is represented in the annexed cut, in which there is a centre-piece with holes through which to pass the ligatures, and between this and the circumference on either side two half-moon shaped pieces are cut out. The advantage is obvious. When it is placed in position, the operator can readily see if there be anything interfering with the accurate adaptation of the parts. Had I not adopted this button, I feel satisfied failure must have ensued, as I was obliged to press back in two places small portions of the mucous membrane of the bladder, which had worked down between the approximated edges of the wound, and which were easily discovered through the portions of the button cut out. This case proved also very conclusively, to my mind, the value of the metallic over the silk suture. There was scarcely a trace of suppuration, the ligatures being all well in place on the day of their removal, ten days subsequent to their introduction. This fact would induce me, in another case, to dispense with the button altogether, as, I believe, is now practised by Dr. Sims, simply twisting the wires, or otherwise to employ the twisted suture, using silver pins, and protecting their ends by shot.

Fig. 1.



Dr. R. K. Smith stated that he had not seen this case since the middle of September. At that time he had been satisfied, with Dr. Agnew, that the cicatrization was complete, and the fistula entirely closed.

Since then the patient had been repeatedly and very carefully examined

by different surgeons, who all agreed that no solution of continuity could be discovered in the track of the fistula, although there was evidently some incontinence of urine. The cause of this leakage could not be determined, but it was not through any defect in the cicatrix. [The incontinence of urine has since been ascertained, by Dr. R. P. Thomas, at the Episcopal Hospital, to have been owing to an adhesion of the neck of the bladder to the uterus, and a displacement of the latter, by which the urethral orifice was drawn open, whenever the patient assumed the recumbent position. The difficulty was overcome by the introduction of a pessary. The patient has continued apparently well up to the present date, March 2, 1859.]

Dr. CONDIE remarked that he had been taught by experience the necessity of allowing, in cases of apparently successful operations for vesico-vaginal fistula, some time to elapse before deciding upon the permanent relief of the patient. In the three cases of operation for vesico-vaginal fistula that had fallen under his notice, the opening between the bladder and vagina remained apparently completely closed, in one three weeks, in another six, and in the third upwards of eight months, when, unexpectedly, it became open to the same extent as at first.

In the third of the cases just referred to, the operation was performed, in a most skilful manner, by Dr. Pancoast. The cure of the fistula was apparently permanent, and so continued to the end of eight months, when, in consequence of some unusual sensations experienced by the patient in the region of the bladder, an examination was made, and a large calculous concretion detected in the bladder, at the place where the fistula had existed. Ulceration soon after took place, and caused a reopening of the communication between the bladder and vagina. In the meantime the case had been reported as a triumphant cure.

It may be that the improved methods of operating recently introduced may be attended with a more permanent success than those adopted in the three cases just referred to.

Dec. 1. *Effect of Respiration on the Position of the Heart.*—Dr. DA COSTA read the following paper on the effect of respiration upon the position of the heart:—

In auscultating persons who supposed themselves affected with cardiac disease, I have had my attention directed to several points connected with the influence of the respiration on the heart, which seem of sufficient interest to warrant my laying them this evening before the College. The phenomena in question may have been noticed by others, but I have not been able to meet them referred to, and to me, at least, they presented the allurement of novelty.

If a full inspiration be taken, it may be usually observed that the action of the heart becomes slower, again to quicken in expiration; and, secondly, that the impulse between the fifth and sixth ribs is hardly or not at all per-

ceptible, whilst the sounds of the heart are only very faintly heard. The latter fact has been treated of in a paper which is now in print.[1] The effects of inspiration in rendering slower, and of expiration in quickening the movements of the heart, have been well investigated by able physiologists; but the change of the position of the heart during the acts of respiration, and the causes of this change, are comparatively unnoticed, and are the subjects which I wish especially to lay before the College.

The impulse, then, at its normal situation, disappears if a long breath be drawn, and the heart sounds at the left apex become almost inaudible. If now, whilst the inspiration is held, the chest be carefully watched, a new impulse can be seen, somewhat lower than between the fifth and sixth ribs, and towards the median line, at a point in which, in quiet breathing, no movement is perceptible.

Desirous of investigating these phenomena, I examined this new impulse —if, for convenience sake, it may be so termed—in a series of observations, made at different times, on healthy persons, having in each instance first accurately ascertained the extent of the percussion dulness of heart and the normal position and strength of the impulse of quiet breathing.

Inspiration.—During a full inspiration in ten adults the upper border of percussion dulness over the heart shifted to nearly the extent of an intercostal space. The impulse became, in all the instances examined, entirely or almost entirely imperceptible under the nipple, between the fifth and sixth ribs; but it was distinctly felt downwards and inwards, at a spot nearly on a level with the ensiform cartilage, immediately below the cartilages of the ribs, and varying from three-fourths to one and a fourth inch from the median line. In some cases, in which it was measured, the new point of distinct impulse was three and a half inches from the impulse beat of quiet breathing.

Percussion over this new point shows dulness and greater resistance to the finger. Near the nipple, between the fifth and sixth ribs, the sound becomes clear. Compared with the point of previous impulse, the beat is not quite as strong; the cardiac sounds heard over it are distinct, far more distinct than near the nipple, where they are almost inaudible, but not quite as distinct as they are at the apex during natural breathing. Especially is this the case with the first sound. The pulse corresponds, during full inspiration, to the somewhat diminished impulse; it is feebler. Yet neither diminished impulse nor feebler pulse is an invariable accompaniment of a forced inspiration.

Expiration.—During a full expiration the phenomena that are observable are almost exactly opposite. The percussion dulness over the heart increases markedly, especially at the upper border. The impulse is forcibly felt, and is extended over a larger space. Its point of distinctness moves

[1] American Journal of the Medical Sciences, January, 1859.

upwards; in some persons by more than the breadth of the rib. It may or may not be at all perceived lower down. The first sound of the heart increases in loudness, but by no means uniformly in distinctness; in some persons it is during a held expiration weightier but less distinct than during quiet breathing.

Having settled these points by repeated clinical inquiry, I sought to explain the cause of the phenomena. To me the conclusion seemed inevitable that not only is the heart during a full inspiration lowered, but its whole position is changed. It is carried not only downwards, but its apex is pressed forwards and inwards by the distended lung. If this be correct, it is evident that the effects of respiration upon the position of the heart have been erroneously stated even by those few authors who have said anything at all on the subject. To quote from standard authorities :—

"In inspiration, also," say Sharpey and Quain, "when the diaphragm sinks and the lungs expand, the apex is withdrawn from the thoracic parietes."

In the article "Respiration" in the *Cyclopædia of Anatomy and Physiology*, vol. iv., John Reid remarks: "But during forcible inspiration the heart recedes deeper into the chest, and during expiration it again comes forwards."

Valentin (p. 185 of his *Physiology*), mentioning the fact that during a full inspiration the heart's impulse is not as distinctly felt, attributes it to the intervening lung. He further adds: "And if a person turns in bed from the left side to the right side, the sensible impulse may likewise disappear. These facts, at any rate, teach us that the heart, which is inclosed air-tight in the chest, does not under all circumstances press against its wall."

Now these statements all indicate that the heart during a full inspiration recedes, or at any rate is removed from the walls of the chest; but do they explain the fact that a new impulse beat is perceptible lower down? Certainly not. The fact itself is not at all alluded to; the explanation of the fact is not possible according to any of the views just stated.

Walshe, who with characteristic completeness discusses the effects of posture and respiration upon the heart, states that inspiration, by carrying the diaphragm downwards, lowers the heart sometimes by an entire interspace, and removes the organ somewhat from the thoracic walls; "but it is to be remembered," he concludes, "that the depression of the diaphragm displaces the base more than the apex."

It is true that this lowering of the organ might account for the new impulse, by supposing it to be that of the right ventricle; but the disappearance of the apex beat from its normal point, and the visible impulse at another, seemed to me to demand a different explanation, namely, that the heart is not only somewhat lowered, but changed in its whole position, during the act of inspiration. It is carried not only downwards, but its

apex is moved inwards and forwards, and this change of position can only be brought about by the pressure of the distended lung.

Reasoning on the phenomena as observed in the living, led to these conclusions. The aid kindly afforded by Dr. Agnew enabled me to test by experiment their truth. The sternum of a subject was removed, and we then proceeded carefully to inflate the lungs. The change in the position of the heart was most striking. As the lung rose more and more, until it nearly reached the ribs, the apex gradually turned inwards, was somewhat lowered, and came distinctly forwards. If it had then struck the parietes of the chest, the impulse would have been visible at exactly the point in which it is observed to strike in the living subject during a full inspiration. The experiments were subsequently repeated, and invariably with the same results.

The next subject that suggested itself for inquiry was, what share the diaphragm has in producing the change in the position of the organ. On the inward and forward movement of the lower part of the heart it evidently has none. The descent of the diaphragm can, of course, only influence the heart through the connection of the pericardium to the diaphragm; and, again, through the attachment of this membrane to the large vessels after they leave the heart. Now, the effect, if the diaphragm move, will be to lengthen the vessels, and thus to lower the whole situation of the heart, but not to turn its apex inwards. Nor is it by any means certain that the downward action of the diaphragm can lower the heart much. The tendinous centre of the diaphragm, to which the pericardium is attached, moves but little, far less than is usually supposed, and its descent is further counteracted by the connection of the deep cervical fascia with the upper end of the pericardium. In order to study the motions of the diaphragm, the abdominal walls of a subject were opened, and all the viscera, excepting the liver, removed. The lungs were then inflated by a tube passed into the trachea. The muscular fibres of the diaphragm descended more and more, and finally bulged out on each side of the tendinous centre; but this neither descended nor ascended much during the acts of inspiration or expiration.

These experiments prove the displacement of the heart to be only in part produced by the diaphragm, much more by the sweep of the distended lung. The forward motion of the organ owns the same cause.

In cases of hypertrophy of the heart the act of inspiration produces a similar displacement; but whether as much, I am not yet able to say.

It may be well here to allude to an argument which might be urged against the interpretation of the changed impulse. As during a full inspiration the ribs are elevated, the finger applied over them is naturally brought up higher, and the heart might thus appear displaced, when, in reality, the ribs are. This is true. But it will not explain an impulse perceived near the median line; and, again, the experiment of removing

the sternum permits the influence of this source of fallacy to be exactly appreciated.

It is hardly necessary to discuss the causes of the phenomena observed in expiration. They follow as a corollary to those of inspiration. The recedence of the lung, the somewhat altered position produced by the different action of the diaphragm and by the absence of all traction on the large vessels, will explain the increased extent and change of impulse, and the enlarged percussion dulness. There are also probably other causes connected with the quantity and state of the circulating blood, and the varying distension of the heart during the respiratory acts, which must be taken into account; but until physiology lifts the veil which enshrouds the relation of the circulation to the respiration, no absolute conclusion can be arrived at as to an apparent increased size, and, still more so, none as to changes in the strength of the impulse.

Tænia cured with Pumpkin-Seeds.—Dr. Hunt exhibited a large portion of a tapeworm, which had been discharged from a patient whose case he briefly narrated.

The patient had been suffering at least two years, and during that time had taken all the ordinary remedies, without apparent relief. Dr. Hunt determined to try the pumpkin-seeds, and at first administered them in the form of an emulsion. For this purpose the seeds were deprived of their envelops, and rubbed with sugar, gum, and water. Two doses, of six fluid-ounces each, were given in this way on an empty stomach. The effect produced was slight, small pieces only of the worm coming away, and mostly in single joints, as it had been coming for the previous two years. He next prescribed the kamala, which has been recently extolled. This, however, only brought on a violent purging, without expelling any of the worm.

After the irritation from the cathartic action of the kamala had subsided, the pumpkin-seeds were again resorted to; but this time they were not deprived of the hulls, and were bruised in a mortar, or rather crushed or ground in a press, by an apothecary. Eight ounces of the seeds were thus reduced to a mass, of which the patient swallowed about one-half at bed-time. The remainder was made into a decoction with boiling-water, strained and taken before breakfast the next morning. The effect was very prompt; a large section of the worm coming away after the first dose, and a much larger one after the second. Although the head was not found, there was good reason for presuming that the patient had been cured, since he had continued several weeks entirely free from the symptoms which had, until that time, indicated the presence of the parasite.

Dr. E. Wallace mentioned a case of a child, in which he had succeeded in removing a tapeworm by the use of pumpkin-seeds, crushed and rubbed up in a mass with sugar.

Imperforate Rectum.—Dr. CORSE reported the following case :—

Peter and Alice Kayton called at my office with their infant, on Friday afternoon, November 26, 1858, for the purpose, as they stated, of getting something to open the child's bowels, and from them I learned that she was born, at some distance from this city, on Sunday morning, November 21, 1858, a little after midnight. On Sunday evening it was observed that she had had no passage from the bowels, and this led to an examination which gave rise to the suspicion that something was wrong; up to this time she had not sucked, although the nipple had been repeatedly placed in her mouth.

On Monday morning a piece of soap was pushed into the anus, and a small quantity of black matter came away with it. She still refused to suck.

On Tuesday morning a dose of magnesia was administered to her, and "soon after she sucked as well as any child." Upon inquiry I found that the mother's breasts then for the first time filled up with milk.

On Wednesday morning a practitioner of the neighborhood was called in, and ordered three powders, one to be given every six hours.

On Thursday morning the mother took castor oil, having been told that that would open the child's bowels. This day the child for the first time vomited, and the matter discharged was of a green colour.

On Friday the child again vomited "*yellow, nasty, ropy stuff.*" They then became uneasy, came to Philadelphia, and called on me late in the afternoon; on examination, by means of a gum-elastic bougie, I immediately discovered the nature of the case, and appointed 10 o'clock next morning to operate.

On Saturday morning the infant "*vomited milk, only a little.*" On more elaborate examination I found the anus perfect, with an opening a full half an inch in depth, consisting of a blind pouch or *cul-de-sac*. I then passed a silver female catheter into the vagina, and found that the posterior wall was very close to the integument, and followed the course natural to the rectum, laying on the floor of the perineum, there being nothing between the two membranes which I could suppose was a canal.

Although generally denominated imperforate anus, the several varieties of this abnormity present important differences. 1. Simple occlusion of the anal opening by a membrane more or less thick; in this variety there will appear at the point where the anus should open, a fluctuating tumour of a dark colour, distended by meconium. 2. The anus may be perfect, and a short distance up there may be a septum of greater or less extent. 3. The rectum is absent, and there may or not be an anus: to this last variety the case above described belongs.

There are other abnormal arrangements of the rectum which have sometimes been described under the name of imperforate anus; but improperly

so. They consist of the rectum opening into the vagina, bladder, or urethra.

Among the different operations which have been proposed to remedy the deformity under consideration, there are three, each of which is based upon a different principle; and each admits of greater or less variation, according to the circumstances of the case.

1st. An artificial opening is made in the perineum, and the dissection carried into the pelvis in the direction where the rectum would naturally be located.

2d. An operation for artificial anus, invented by Callisen and since modified by Amussat. It is based upon the fact, that the colon in the left lumbar region has not a peritoneal covering posteriorly; it may, therefore, be reached without opening the peritoneum. Callisen's operation consists in making an incision in the left lumbar region, parallel with the spinal column, from the crest of the ileum nearly to the lower rib, and not far from the ends of the transverse processes of the lumbar vertebra. Amussat has modified this operation by making the incision almost at right angles with the vertebral column, and deepening it with great care until the colon is reached; the gut is then seized with a hook, drawn out, and opened.

3d. Littrè's operation in the left iliac region, is effected by an incision parallel with Poupart's ligament, opening the cavity of the peritoneum, and thus exposing the bowel; this must be drawn out, retained in apposition to the integumental aperture a sufficient length of time for the establishment of adhesion, and then evacuated by incision.

The operation performed here was in the perineum, and the cutting extended as far as prudence would permit.

I commenced by making an incision posteriorly, cutting through the sphincter ani muscles; and after dilating the orifice, sought for a fluctuating tumour of a dark colour, but found nothing of the kind. The incision was then extended posteriorly towards the coccyx, all the while keeping a vigilant look out for any soft body that might appear. By degrees the dissection was cautiously carried backwards along the hollow of the sacrum, using the catheter in the vagina to prevent cutting into it, until I reached the superior strait of the pelvis; having separated the pelvic contents very freely from the sides around, an opportunity was thus afforded for the intestine to descend; nothing of the kind made its appearance, and I was fearful to carry the dissection any further, lest I should cut the aorta or primitive iliac.

I placed a tent of lint in the wound, and had the child brought to me the next day; a careful examination was made, but nothing like the bowel appeared, nor was there any tumefaction of the abdomen.

Monday morning the father called to inform me that no evacuation from

the bowels had taken place; but the child sucked well, slept well, and passed plenty of urine.

Tuesday morning I learned from the father that the child seemed in every way comfortable; she sucked greedily, slept well, urinated abundantly, and had some bearing-down efforts, as in evacuating the bowels.

Wednesday—this morning, at $4\frac{1}{2}$ o'clock, a change took place; the child seemed weak, gradually sank, and expired without a struggle, at $9\frac{3}{4}$ A. M., having lived a little more than ten days.

The case had several features, which struck me as being extraordinary. 1. The child sucked greedily from the time the flow of milk was established until a very short time before its death. 2. It rested remarkably well, not at any time evincing suffering of any consequence. 3. It vomited very little, indeed; this leads to the supposition that the milk was digested and absorbed. 4. There was no tumefaction of the abdomen until the last few hours of its life.

We are then to suppose that the detritus of the azotized tissues passed away as urea and other constituents of the urine, which was very copious; and that the carbo-hydrogens were converted into carbonic acid and water, and passed away by the lungs, skin, and kidneys. The distension of the abdomen towards the last was sudden, and was, probably, due to the evolution of gas, and not to accumulation of feces. The child was named after a relative, and many fine expectations were disappointed by its death; under these circumstances I was denied the privilege of making a *post-mortem* examination, although I earnestly solicited it.

An autopsy in this case would, of course, have afforded a contribution both to teratology and physiology.

Hemorrhage from the Pharynx, resulting from the partial swallowing of a piece of cartilage.—Dr. Packard exhibited a thin triangular and pointed piece of cartilage, $2\frac{1}{4}$ inches long and $1\frac{1}{4}$ inch wide, the epiphysis of the breast-bone of a young turkey, which had been partially swallowed by a man about forty years of age. It was supposed to have lodged in the œsophagus, about one inch below the level of the top of the larynx. After suffering more or less from it, and being unable to take any solid food until it was expelled, he managed to pull out the fragment on the sixth day.

No unpleasant effects were observed by the patient until the evening of the eighth day, and the second day after the removal of the foreign body. He was then suddenly attacked with a copious arterial hemorrhage, losing, in a short time, about three pints of red blood. Dr. Packard was immediately called upon, and succeeded in stopping the flow of blood by free applications of tinct. ferri chlor., with a probang and sponge, introduced into the pharynx. Another less copious hemorrhage occurred, after an interval of forty-eight hours, and was checked without difficulty in the same manner. The patient has since then escaped a further attack.

1859, *Jan.* 5. *Improved Spirometer.*—Dr. S. W. Mitchell exhibited an improved form of spirometer, of which he gave the following description:—

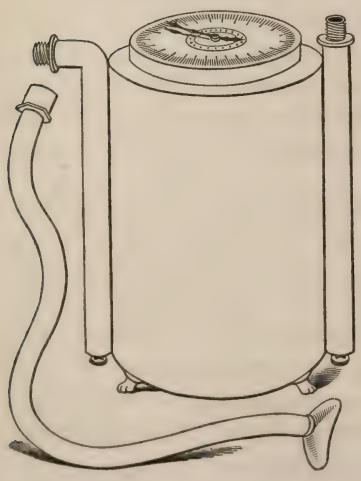
While conducting some recent researches upon the physical statistics of natives of this country, I was struck with the clumsiness, and, in some cases, with the inaccuracy, of the form of spirometer in common use. This instrument, well known as Hutchinson's spirometer, is accurate in its indications when well made, but is always inconvenient, because it requires to be filled with water, and, on account of its weight and form, is not easily carried from place to place. This latter objection applies equally to all the spirometers I have examined; while most of the instruments made on this side of the water are also open to the additional objection of want of accuracy.

The instrument which I have used in its place is merely a small "dry gas-meter," numbers of which are made in this city by Messrs. Code, Hopper & Co. With the aid of Mr. Gratz, a member of this firm, some slight alterations were made in the valves of the meter, and the inlet-pipe was somewhat narrowed. A large dial-plate, graduated to inches and halves of inches, was also placed on top of the meter, so that the rotation of an indicating hand would mark the number of cubic inches which passed through the machine.

It is unnecessary to describe the interior details of the meter thus adapted to spirometric use. In the form of a dry gas-meter it has been used, almost to the exclusion of the very inconvenient "wet meter," in many parts of this country, and has been found to perform its work of registration, for years together, without serious error and without needing repairs.

The instrument thus briefly described is figured in the annexed cut. Its height is but fourteen inches, its width eleven. The inlet-pipe is so marked, and to this, when arranged for use, an India-rubber tube and mouth-piece are attached. The inlet and outlet-pipes form convenient handles when the spirometer is to be carried.

Fig. 2.



I have tested the accuracy of this little instrument with great care, and have put it to more severe trials than the meter is usually subjected to. Its indications appeared to be almost perfect. The new form of spirometer runs with so little friction, that a pressure of one-eighth of an inch of water will move it readily. One

source of error is thus avoided, since, if the instrument did not move easily, the first air blown into it would be more or less condensed, and so occupy less space than it should do.

After the spirometer has been used fifty or sixty times, the moisture from the breath, which collects in the form of a few drops of water within the instrument, should be allowed to escape by the removal of a button placed underneath the meter.

The form of spirometer here described has lately been employed by a committee of the biological department of the Academy of Natural Sciences of this city, to measure the pulmonary capacity of some five hundred men. In every way the instrument was found to be satisfactory, being portable, requiring no water, and not being readily deranged.

So far as the committee have gone, they have seen increasing reason to regard with distrust all spirometric valuations of men. In every case they have been careful, by repeated trials, to obtain the best result of which the individual was capable; but they have been, so far, much impressed with the difference between their own results and those obtained by others abroad. As the height, weight, and girth of chest have also been taken, the committee hope, at some future time, to be able to report in detail their results, as bearing upon the lung capacity of men born in this country.

The spirometer is to be obtained from Messrs. Code & Hopper of this city, well known as manufacturers of gas-meters. The cost of the new instrument will probably not exceed fifteen dollars, which is less than that of the worst form of the ordinary spirometer now in use.

Feb. 2. *Report on Meteorology and Epidemics.*—Dr. Wilson Jewell read the following report on meteorology and epidemics for 1858:—

In submitting the annual report to the College, on meteorology and epidemics, I have occasion anew to refer to the incompleteness of the tables and computations, the inevitable result of inherent difficulties from defective returns under the existing law for the registration of deaths.

The best estimate of the health of our city can only be derived from its records of mortality as compared with those of former years and other cities. The value, therefore, of such a record, depends upon its accuracy and truthfulness.

Our statistics, however, are, like many elsewhere collected, not only imperfect in systematic arrangement, but very general, and, in some instances, of doubtful character. This latter defect is attributable in a great measure to the irresponsible sources from which they emanate, and to the frequent false returns made by ignorant and knavish pretenders in medicine, between whom and the scientific and educated physician the statute-books of our commonwealth, as well as a misguided public, recognize no distinction.

While it is humiliating to refer to the existence of such irregularities, it

is no less essential, in order that proper allowance be made for the incongruities which may be discovered in these records of mortality.

But, notwithstanding the imperfections alluded to, fragments of reliable information have been gathered through these channels, from which may be drawn truthful conclusions bearing upon the relative cause and effect of disease, as it has prevailed from year to year in the midst of our population.

Nor are these scanty records less useful for stimulating us with enlarged desires to secure the collection of more perfect returns, not only of deaths, but of births and marriages, until the vital statistics of our extended municipality shall become a stand-point from which we may not only look abroad, and, with some degree of precision, discover and investigate the nature and cause of our prevalent diseases, but provide adequate means to guard against the introduction of those deleterious agents that vitiate our atmosphere, or in other ways become the causes of sickness and death in our community.

I shall not therefore be considered ultra in my opinion if I affirm, that our mortality tables for Philadelphia never can be otherwise than as represented, until a more complete system of registration has been secured by legislative enactment. In this connection I cannot resist adverting to the many imperfections in the nomenclature of diseases, as employed by those who furnish the certificates of death received at the health office in our city. I refer more especially to the entire absence of a uniform method in reporting the causes of death. Very few of our physicians adhere to any one particular nosological arrangement. Indeed, I apprehend that many, whose duty it becomes to give certificates of death, have so limited an appreciation of this important department of science, that they feel no incentive to answer its demands; while to the unscrupulous pretender, who never looks beyond the sordid motive of pecuniary gain in the pursuit of his calling, it is a question of entire indifference what name he shall give the disease of which his patient died, admitting that he possesses sufficient intelligence to inform himself of the true cause of death. I do not make these remarks in a censorious spirit, nor from a belief that this want of accuracy is peculiar to our own city. Similar imperfections exist elsewhere, in other cities, and, in some instances, to a far greater extent. The true cause of the irregularity to which I have reference will be found in the absence of a uniform and approved nosological classification of diseases.

A careful comparison of the record of deaths for 1858 with that of the two preceding years, will present a single feature which can only be attributed to the defective plan now pursued in certifying to and in recording deaths. In the table of mortality for 1857, as reported to the College, the causes of death are represented by 201 distinct names, and in 1856 by 195; in the one under consideration, for 1858, there will be found only 112, less by 86 than the average of those in the two preceding years. In presenting this statement, I do not desire to be understood as entertaining for a single

moment the opinion, that the causes of death from one year to another should correspond in every particular, both as to numbers and variety; but while I take a common sense view of this subject, and make careful allowance for changes and inaccuracies in each tabulated record of names of diseases, I cannot understand on what principle so great a difference should occur as that referred to, especially when there are no deaths recorded from some of the most frequent forms of disease.

Under the title of cancer and scirrhus will be found 125 deaths, but in no instance is the special organ or structure involved, designated. Nor are there deaths named in the table from any form of disease of the uterus or ovaries, except the 36 deaths from puerperal fever, which fall below the usual amount for the year. Deaths from hemorrhage of the lungs, stomach, or bowels, disease of the bladder or kidneys, are all wanting. It is asking too much to believe that during the year there had not been a single death from any of these diseases. The fact should not be overlooked, however, that the unusual health of our population might possibly have exerted an influence upon the change in the causes of death to which I have reference. Still, I am not disposed to advocate the idea, that this apparent exemption from sickness would effect an alteration to the like extent as manifested in the record, much less from the same class of diseases. It must have resulted from other and less legitimate causes.

The only rational causes I can educe for the absence of these terms from the record are the loose and imperfect system of registration, a defective classification of diseases, and, last, though not least, sheer carelessness and incompetence in many to investigate the cause of death.

This entire subject of registration and classification of diseases in this country is now commanding more attention than ever before. Physicians, men of science, statesmen, and political economists are becoming interested in those great principles which involve the science of life, and are thoroughly investigating their influence.

Eight of these United States have at this time in successful operation well regulated and reliable plans, legally enforced, to register the births, marriages, and deaths in their respective commonwealths. In several other States the subject has been agitated, and preliminary steps taken to secure similar laws. Pennsylvania still slumbers over these vital interests of humanity. Other and less important claims she watches with an Argus eye, but can behold no wisdom in watching over the health and the lives of her citizens.

I am happy to announce, however, that another effort, bearing the approval of this College, is now in progress to procure a law for Philadelphia only, for the registration of births, marriages, and deaths. I confidently hope that the next report on this subject will embrace so desirable an improvement, and harbinger the dawn of a new era, in the collection and analyzation of the vital statistics of our city. In this event, the foundation

for a superstructure will be laid, that shall augment in value and importance from year to year, as the work progresses, until it shall exhibit a proud monument, teeming on every side with reliable data, for the employment of the intellect and industry of a future statistician, out of which he may determine with accuracy the growth or the decay of the public health.

Nor will the advantage be confined to our own city. I flatter myself, that, if the law is secured, its usefulness will be made so evident in a few years, that the necessity for one embracing the entire State will be so widely recognized, that no difficulty will be experienced in obtaining its passage through the Legislature.

The report of that distinguished statistician, Edward Jarvis, M. D., of Mass., presented at the last session of the American Medical Association, on the law of registration, is replete with interest. It evinces a sound knowledge of the subject, and reflects great credit upon its author, placing him high in the list of writers on medical literature and medical statistics. In this article a statistical nosology is furnished, for the consideration of the profession, which is a revision of the one adopted by the association in 1847. Dr. Farr's plan of classification of diseases, as followed by the Registrar-General of England in his valuable reports, is also appended; and the writer says, "it is worth our consideration whether it would not be better to adopt this system for the American States, although looking to its merits alone, it may be inferior to that already in use."

Highly as I appreciate the experience and judgment of Dr. Jarvis in all matters that appertain to sound logic in medical statistics, and much as I may approve the motive that directed the above opinion, I am not ready to indorse it. There is no reason why we should not establish a system of statistical nosology peculiarly our own. We are not only capable, but our national character, our social condition, our climate, our physical and mental peculiarities, our habits and manners, and our principles of free government, all seem to urge upon us strong claims for an American system of classification of diseases.

At present this question is an unsettled one in our country. Doubtless it will remain so for some time, or until the combined judgments of the States shall see eye to eye in behalf of those vital interests of health and life, which are intimately allied to this whole subject.

When that enlightened period arrives, and it may not be far distant—when each State shall be prepared to enact uniform laws of registration, then will be the proper time, and the appointment of a medical commission, embracing delegates from all the States, suggests itself to my mind as the only sure provision for arranging and securing a system of classification of diseases, which shall not only be uniform in its arrangement, but acceptable, efficient, and permanent in its operation.

For present use, the table of the American Medical Association, adopted

in 1847, with a few slight alterations, may answer our purpose. It is concise, simple, easily understood, and available.

The annexed record contains an abstract from observations on the atmosphere and its phenomena, as made by my friend, Jas. A. Kirkpatrick, A. M., Professor of Civil Engineering in the Philadelphia High School, whose kindness I must again acknowledge.

These observations have been prepared with great care for the Smithsonian Institution, at Washington, and may be relied upon for their accuracy.

From this abstract we learn that the mean temperature for the year was 55.20°, an increase of 1.72° over that of 1857, and a higher mean temperature by 1.31° than for the last seven years.

The maximum temperature for the year was 96½°. This was on the 28th of June. The minimum temperature was 10° on the 5th and 6th of March.

The warmest days were the 28th of June and the 11th of July—the mean temperature being 89.2°.

The coldest day was the 5th of March, when the mean of the thermometer was 14.3°.

February was the coldest month in the year—the mean temperature being 30.11°.

July was the warmest month—the mean heat being 79.20°.

The monthly range of the thermometer for the year was 86½°, and the daily range 5.18°.

The mean of the thermometer for the summer was 77.24°, and for the winter 37.22°.

The least variable month was May, the range standing 35°.

The barometer ranged for the year, monthly, 1.325 inch—while the annual mean was 29.885 inches; nearly equivalent to the mean for seven years.

The highest point of pressure shown by the barometer was on the 8th of January, when it stood 30.531 inches; and the lowest was on the 21st of December, 29.206 inches.

The due point in its maximum for the year was 78.5°, and the minimum 13.5°.

The relative humidity of the atmosphere in its maximum was 100 per cent., while the minimum per cent. was 18.

The amount of rain that fell during the year was 41.059 inches, which was less than the rain in 1857 by 7.389 inches. The greatest depth of rain and snow in any month was in December, amounting to 5.459 inches. The least quantity was in March, only 1.124 inch.

The rain for the year was 2.94 inches less than for the last seven years.

General Abstract of Meteorological Observations, made at Philadelphia, Pa., during the year 1858.
By JAMES A. KIRKPATRICK, A. M., Prof. of Civil Engineering in the Philadelphia High School.

1858.	THERMOMETER.									BAROMETER REDUCED TO 32° F.							
							RANGE.		Mean of daily oscillations.							RANGE.	
MONTHS.	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Monthly.	Mean daily.		7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Monthly.	Mean daily.
	°	°	°	°	°	°	°	°	°	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
January . . .	36.65	45.44	40.34	40.81	62	22	40	5.94	14.0	29.970	29.925	29.959	29.951	30.531	29.410	1.121	.208
February . . .	24.84	34.95	30.52	30.11	53	11	42	6.08	14.4	29.907	29.848	20.867	29.874	30.253	29.404	.849	.190
March	34.11	47.71	40.19	40.69	71	10	61	5.98	17.1	29.829	29.777	29.815	29.807	30.271	29.306	.965	.171
April	47.00	59.40	51.15	52.52	84	33	51	7.03	17.3	29.774	29.729	29.751	29.751	30.049	29.325	.724	.150
May	55.26	64.79	57.87	59.31	81	46	35	5.48	14.6	29.819	29.790	29.809	29.805	30.250	29.386	.864	.158
June	73.78	83.57	75.28	77.55	96½	53	43½	4.39	18.3	29.836	29.797	29.808	29.813	30.041	29.605	.436	.072
July	75.13	85.31	77.23	79.22	95½	60	35½	3.67	17.2	29.845	29.805	29.831	29.827	30.124	29.534	.590	.094
August	70.08	81.03	73.77	74.96	90	54	36	4.42	16.1	29.843	29.809	29.836	29.829	30.098	29.550	.548	.095
September . . .	61.32	76.03	66.37	67.92	88	41	47	4.05	19.7	29.944	29.892	29.925	29.922	30.217	29.343	.874	.135
October	53.32	66.63	58.53	59.49	90	35	55	5.32	17.3	29.934	29.876	29.918	29 906	30.318	29.382	.936	.143
November . . .	38.52	46.23	41.90	42.22	68	24	44	3.53	12.3	29.805	29.780	29.807	29.797	30.060	29.430	.630	.136
December . . .	34.50	40.97	37.47	37.65	63	15	48	6.30	11.8	30.002	29.955	29.966	29.974	30.459	29.206	1.253	.206
Annual means .	50.38	61.00	54.22	55.20	96½	10	86½	5.18	15.8	29.875	29.832	29.858	29.855	30.531	29.206	1.325	.146
Winter	32.97	41.92	37.05	37.32	64	11	53	5.91	13.9	29.931	29.881	29.912	29.908	30.531	29.266	1.265	.201
Spring	45.46	57.30	49.74	50 84	84	10	74	6.16	16.3	29.807	29.765	29.792	29.788	30.271	29.306	.965	.160
Summer	73.00	83.30	75.43	77.24	96½	53	43½	4.16	17.2	29.841	29.804	29.825	29.823	30.124	29.534	.590	.087
Autumn	51.06	62.96	55.60	56.54	90	24	66	4.30	16.4	29.891	29.849	29.883	29.874	30.318	29.343	.975	.138
For seven years .				53.89	100½	—5½	105½	5.52					29.880	30.709	28.895	1.814	.151

Meteorological Observations—Continued.

1858.	Relative Humidity.					Force of Vapour.						Winds.	Clouds. Tenths of sky covered.			Dew-point.				
Months.	7 A.M.	2 P.M.	9 P.M.	Max.	Min.	7 A.M.	2 P.M.	9 P.M.	Max.	Min.	Rain and melted snow.	Monthly resultant; No. of times in 1000.	7 A. M.	2 P. M.	9 P. M.	7 A.M.	2 P.M.	9 P.M.	Max.	Min.
	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Inch.	Inch.	Inch.	Inch.	Inch.	Inches.					°	°	°	°	°
January . . .	75	59	69	96	26	.171	.187	.182	.505	.078	2.686	N. 54° 44′ W., 299	5.9	6.4	5.1	29.40	31.19	30.76	59.3	12.9
February . . .	71	54	67	96	26	.102	.111	.119	.246	.042	2.393	N. 64° 32′ W., 302	6.1	6.1	4.5	16.70	19.32	21.02	39.8	—0.7
March	65	44	58	90	18	.138	.162	.156	.448	.023	1.124	N. 71° 0′ W., 398	4.9	4.6	3.0	23.10	25.31	25.86	55.9	—13.5
April	71	49	66	96	23	.238	.248	.256	.505	.089	4.681	N. 3° 38′ E., 104	6.4	6.9	6.0	37.59	38.06	39.64	59.3	15.8
May	75	60	72	97	26	.330	.366	.352	.691	.191	5.308	N. 63° 26′ E., 210	7.8	6.9	6.2	46.87	49.07	48.32	68.3	29.2
June	72	55	72	94	31	.606	.627	.641	.934	.361	4.205	N. 71° 34′ W., 234	5.3	5.9	4.1	63.78	64.85	65.42	77.2	50.0
July	72	50	69	86	32	.632	.615	.657	.975	.368	1.454	S. 37° 42′ W., 173	4.8	5.2	2.6	65.09	64.10	66.26	78.5	50.5
August	78	55	71	95	37	.589	.583	.605	.864	.319	5.157	N. 77° 28′ W., 55	5.6	6.2	4.5	63.03	62.52	63.71	74.9	46.7
September . .	79	50	72	95	34	.451	.465	.483	.792	.166	1.389	S. 88° 38′ W., 258	3.9	3.9	2.5	54.61	55.35	56.65	72.3	29.9
October . . .	79	53	73	97	24	.238	.351	.373	.591	.126	1.778	S. 84° 48′ W., 202	5.3	5.1	4.3	46.62	47.06	49.81	63.7	23.5
November . . .	79	61	73	96	33	.192	.195	.204	.361	.090	5.225	N. 41° 5′ W., 309	6.5	6.8	6.5	32.43	32.23	33.82	5.00	16.1
December . . .	80	69	78	100	33	.169	.172	.188	.424	.071	5.459	N. 34° 26′ W., 245	7.6	7.2	6.3	28.82	30.80	31.11	60.3	10.9
Annual means .	75	55	70	100	18	.330	.340	.351	.975	.023	41.059	N. 61° 40′ W., 180	5.8	5.9	4.6	42.34	43.32	44.36	78.5	—13.5
Winter	75	58	70	96	26	.153	.161	.165	.526	.042	10.582	N. 59° 2′ W., 277	6.4	6.0	4.6	25.82	27.23	27.95	60.4	—0.7
Spring	70	51	65	97	18	.235	.259	.255	.691	.023	11.113	N. 27° 25′ W., 123	6.4	6.1	5.1	35.85	37.48	37.94	68.3	—13.5
Summer . . .	74	53	71	95	31	.609	.608	.634	.975	.319	10.816	S. 82° 39′ W., 127	5.2	5.8	3.7	63.97	63.82	65.13	75.5	46.7
Autumn . . .	79	55	73	97	24	.327	.337	.353	.792	.090	8.592	N. 71° 43′ W., 233	5.2	5.3	4.4	44.55	44.88	46.76	72.3	16.1
For seven years.		58		100	16		.344		.975	.023	43.153	N. 73° 33′ W., 215					44.40		78.5	—13.5

TABLE I.—*Mortality for the year* 1858, *Collated from*

DISEASES.	FIRST QUARTER, COMMENCING JANUARY 2, 1858.									SECOND COMMENCING					
	Jan.		Feb.		March.		Adults.	Minors.	Total.	April.		May.		June.	
	M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F.
Abscess	5	1	1	4	2	3	10	6	16	1	1	..	..	1	..
Albuminuria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Aneurism	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Apoplexy	5	1	6	4	11	1	27	1	28	3	6	6	5	8	7
Asphyxia	..	..	..	..	..	..	..	..	..	..	1	4	1	2	..
Asthma	..	..	..	..	1	..	1	..	1	2	..	..	..	2	1
Cancer and scirrhus	2	7	1	6	3	6	23	2	25	1	6	3	8	4	9
Caries	..	1	..	..	..	..	..	1	1	..	..	..	..	..	..
Catarrh	4	1	..	..	4	3	..	12	12	2	3	2	2	..	1
Casualties	13	6	13	5	17	6	40	20	60	11	7	6	3	10	6
Burns and scalds	1	3	1	..	4	6	5	10	15	1	2	..	2	2	1
Drowned	6	..	3	1	4	..	13	1	14	8	2	12	..	16	..
Fracture	1	..	1	..	1	1	3	1	4	..	..	..	..	..	..
" of pelvis	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Poisoning	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..
Suicide	2	..	1	..	2	5	9	1	10	1	..	..	2	2	..
Cholera infantum	..	1	..	..	2	..	..	3	3	2	1	4	1	32	29
" morbus	..	..	..	1	1	1	2	3	1	..	2	1	2	2	2
Cirrhosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Childbed	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..
Concussion of the brain	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Congestion of the brain	11	11	6	6	5	5	14	30	44	8	10	11	3	15	11
" " liver	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..
" " lungs	2	1	..	7	3	4	8	9	17	2	5	5	4	2	8
Consumption of the lungs	77	79	63	70	84	85	391	67	458	86	69	53	77	81	67
Convulsions	21	30	22	27	31	26	11	146	157	28	10	14	21	46	31
Croup	20	12	21	13	17	22	..	105	105	8	8	9	6	14	12
Cyanosis	4	1	2	..	1	2	..	10	10	2	1	..	2	4	2
Coup de soleil	..	..	..	..	..	..	..	..	..	..	..	..	..	20	3
Coxalgia	..	..	..	..	..	..	..	..	..	2	1	..	..	..	..
Constipation	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..
Debility	15	23	17	17	28	20	76	44	120	15	20	19	14	12	8
Diabetes	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..
Diarrhœa	2	3	..	3	2	2	6	6	12	3	..	5	3	1	..
Disease of the bladder	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" " brain	6	2	4	4	9	4	8	21	29	7	4	14	2	14	8
" " chest	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1
" " heart	5	11	8	11	14	12	36	25	61	9	4	8	9	13	11
" " liver	3	4	..	..	7	4	12	6	18	2	3	5	8	5	2
" " lungs	3	..	3	2	3	2	7	6	13	3	4	2	1	..	..
" " spine	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" " stomach and bowels	1	1	..	..	2	2	5	1	6	4	2	..	..	..	..
Dropsy	18	12	17	11	16	15	37	52	89	3	3	..	..	..	..
" of the brain	1	1	..	4	12	13	3	28	31	15	11	15	9	23	14
" " chest	..	..	..	..	3	3	6	..	6	7	7	8	10	4	4
" " heart	..	..	..	1	..	1	1	1	2	1	..	1	3	4	2
Dysentery	1	2	2	..	4	4	7	6	13	1	1	3	2	7	11
Dyspepsia	..	..	..	..	1	..	..	1	1	..	..	..	..	..	..
Effusion on the brain	6	2	3	3	3	3	2	18	20	2	2	3	..	3	2
Enlargement of the heart	..	..	..	1	..	1	..	2	2	..	..	..	1	..	..
Epilepsy	1	1	..	..	..	..	1	1	2	..	..	..	..	..	..
Erysipelas	2	3	4	4	5	8	17	9	26	3	2	2	2	4	4
Fever, bilious	..	1	1	..	1	2	5	..	5	..	..	..	1	2	..
" brain	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
" congestive	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..
" intermittent	..	1	..	1	..	..	1	1	2	..	..	..	..	..	..
" nervous	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
" puerperal	..	..	..	..	..	1	1	..	1	..	7	..	3	..	7
" remittent	..	..	1	1	..	..	1	1	2	..	1	1	1	..	..
" scarlet	21	21	18	20	19	21	1	119	120	9	18	18	9	6	8
" typhoid	8	3	9	10	14	7	33	18	51	5	8	3	4	4	5
" typhus	4	1	4	3	5	4	11	10	21	4	2	2	3	2	2
" " icterodes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gangrene	..	..	1	1	2	1	3	2	5	..	..	..	..	..	1
Gout	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hemorrhage	2	..	3	..	3	2	6	4	10	4	5	2	2	1	4
Hernia	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Hooping-cough	1	3	4	4	2	8	..	22	22	5	8	4	3	8	21
Hydrophobia	..	..	..	..	1	..	1	..	1	..	..	..	..	..	..

Returns made to the Health Office. By WILSON JEWELL, M. D.

QUARTER, April 3, 1858.			THIRD QUARTER, Commencing July 3, 1858.										FOURTH QUARTER, Commencing October 2, 1858.									Total for the year.
			July.		Aug.		Sept.						Oct.		Nov.		Dec.					
Adults.	Minors.	Total.	M.	F.	M.	F.	M.	F.	Adults.	Minors.	Total.		M.	F.	M.	F.	M.	F.	Adults.	Minors.	Total.	
2	1	3	4	..	..	1	..	1	5	1	6		1	2	..	..	3	..	4	2	6	31
..	..	..	..	..	..	..	..	..	..	..	..		..	..	1	..	..	..	1	..	1	1
..	..	..	..	..	..	..	..	..	..	..	..		..	..	1	1	..	..	1	1	2	2
32	3	35	6	1	7	3	4	3	23	1	24		2	1	7	5	3	6	24	..	24	111
..	8	8	4	3	5	..	3	..	1	14	15		2	..	..	1	7	4	4	10	14	37
5	..	5	..	1	1	..	..	1	2	1	3		1	..	..	..	..	2	3	..	3	12
27	3	30	2	7	4	17	3	10	36	7	43		1	8	5	8	3	2	24	3	27	125
..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	1
..	10	10	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	22
28	15	43	11	3	5	4	21	6	23	27	50		6	3	9	2	17	1	25	13	38	191
..	8	8	..	1	..	1	3	..	1	4	5		2	5	2	5	5	8	6	21	27	55
25	13	38	26	1	9	1	19	1	35	22	57		10	..	4	2	2	..	15	3	18	127
..	..	..	..	..	..	..	..	..	..	..	..		1	..	..	..	..	..	1	..	1	5
1	..	1	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	1
4	1	5	3	2	..	1	..	1	7	..	7		2	1	1	..	..	..	4	..	4	26
..	69	69	151	128	117	102	39	38	..	575	575		4	8	..	3	..	..	..	15	15	662
5	3	8	12	11	5	7	4	2	34	7	41		..	..	1	..	..	..	1	..	1	53
..	..	..	..	..	..	..	1	..	1	..	1		..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	1
1	..	1	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	1
16	42	58	19	20	16	22	14	6	34	63	97		1	6	7	7	16	5	19	23	42	241
..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	1
10	16	26	2	5	1	1	3	3	10	5	15		4	1	1	3	5	6	9	11	20	78
381	52	433	55	62	47	68	72	87	350	41	391		45	55	51	55	92	79	359	18	377	1659
10	140	150	30	48	23	25	28	18	14	158	172		23	25	24	16	20	22	8	122	130	609
1	56	57	7	3	5	8	6	4	1	32	33		13	9	22	11	20	22	..	97	97	292
1	10	11	..	..	1	2	2	1	..	6	6		4	2	..	1	3	2	..	12	12	39
22	1	23	3	..	..	..	..	..	2	1	3		..	..	..	..	..	..	..	..	..	26
2	1	3	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	3
..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	1
51	37	88	20	22	24	12	38	17	60	73	133		13	14	20	13	27	29	55	61	116	457
2	..	2	1	..	..	..	..	..	1	..	1		..	..	..	..	..	..	..	..	..	3
6	6	12	32	23	19	13	8	9	24	80	104		3	1	1	2	3	..	7	3	10	138
..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	1	..	1	..	1	1
19	30	49	7	6	6	5	10	1	11	24	35		4	..	5	2	5	5	12	9	21	134
3	..	3	..	1	..	..	..	1	1	1	2		1	2	..	..	1	2	5	1	6	11
40	14	54	9	6	8	10	12	5	34	16	50		4	5	10	11	10	10	40	10	50	215
19	6	25	..	..	3	3	3	2	8	3	11		2	2	3	2	3	2	12	2	14	68
4	6	10	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	23
..	..	..	1	..	1	..	1	..	1	2	3		..	..	..	1	..	1	..	2	2	5
4	2	6	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	12
4	2	6	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	95
4	83	87	21	17	19	19	9	7	2	90	92		10	8	7	7	7	12	6	45	51	261
36	4	40	4	9	7	6	8	9	37	6	43		5	7	9	6	11	13	50	1	51	140
10	1	11	2	2	1	2	2	1	8	2	10		1	..	1	1	1	..	4	..	4	27
8	17	25	33	28	43	41	23	18	53	133	186		2	3	1	3	4	3	7	9	16	240
..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	1
4	8	12	9	3	4	4	1	5	5	21	26		2	3	3	2	3	1	5	9	14	72
..	1	1	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	3
..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	2
12	5	17	2	1	2	2	4	..	4	7	11		3	..	..	..	1	..	2	2	4	58
3	..	3	4	1	7	5	6	1	18	6	24		3	4	2	1	1	..	9	2	11	43
..	1	1	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	2
1	..	1	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	1
15	2	17	..	6	..	5	..	2	11	2	13		..	2	..	..	..	3	5	..	5	36
..	3	3	..	..	..	..	2	3	2	3	5		1	1	3	2	..	..	6	1	7	17
4	64	68	4	3	4	4	..	5	1	19	20		7	7	3	3	7	6	2	31	33	241
21	8	29	7	3	13	9	15	10	35	22	57		14	9	7	5	14	11	46	14	60	197
10	5	15	5	4	3	1	2	4	14	5	19		1	3	2	1	5	4	13	3	16	71
..	..	..	..	..	7	2	4	3	14	2	16		..	..	..	..	..	..	..	..	..	16
..	1	1	3	..	1	..	3	2	1	8	9		..	..	..	1	..	..	..	1	1	16
..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	1	..	1	..	1	1
14	4	18	3	1	2	1	3	4	9	5	14		1	3	1	3	1	3	7	5	12	54
..	1	1	..	..	..	..	..	..	..	..	..		1	..	1	1	..	1	3	1	4	5
..	49	49	7	8	15	13	5	11	1	58	59		5	5	2	6	2	3	..	23	23	153
..	..	..	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	1

TABLE I.—*Mortality*

DISEASES.	FIRST QUARTER, COMMENCING JANUARY 2, 1858.									SECOND COMMENCING					
	Jan.		Feb.		March.		Adults.	Minors.	Total.	April.		May.		June.	
	M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F.
Icterus	..	2	3	..	..	1	3	3	6	2	..	..	1	..	..
Inanition	3	4	1	3	3	7	3	18	21	4	2	4	1	6	3
Inflammation of the bladder	1	..	..	1	..	..	1	1	2	1	..	..	..	..	..
" " brain	16	11	13	8	16	8	19	53	72	22	5	9	6	16	14
" " bronchi	3	5	2	5	5	4	11	13	24	5	7	3	3	7	5
" " [illegible]	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..
" " heart	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
" " kidneys	1	..	1	..	..	..	2	..	2	..	1	..	..	..	..
" " liver	..	1	4	3	..	..	7	1	8	1	..	..	..	3	2
" " lungs	18	6	34	15	30	31	48	86	134	25	16	28	24	29	25
" " peritoneum	1	..	..	3	..	4	5	3	8	3	6	3	2	3	4
" " pleura	..	1	..	1	..	..	2	..	2	..	..	..	..	..	..
" " stomach & bowels	5	7	8	7	12	10	24	25	49	5	12	10	10	17	12
" " throat	..	..	..	..	2	..	..	2	2	2	2	..	..	..	..
Intemperance	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Intussusception	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Malformation	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..
Mania	..	..	..	1	..	..	1	..	1	..	1	1	..	..	..
Mania à potu	7	..	4	2	6	2	..	..	21	4	..	3	2	10	1
Marasmus	10	8	16	12	21	13	3	77	80	20	17	18	8	27	20
Measles	..	..	..	1	..	..	..	1	1	..	1	..	2	2	2
Mortification	..	..	..	..	1	3	..	4	4	..	1	..	..	1	1
Obstruction of the bowels	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..
Old age	3	8	7	14	9	15	56	..	56	18	17	18	19	20	30
Osteo-sarcoma	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Neuralgia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Palsy	2	1	7	5	4	5	24	..	24	4	2	3	2	8	4
Purpura	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatism	2	2	..	..	4	4	10	2	12	5	6	1	..	1	..
Scrofula	1	1	1	3	7	4	9	8	17	1	..	3	3	2	3
Smallpox	..	..	..	..	1	..	1	..	1	..	..	1	..	1	1
Softening of the brain	..	..	..	..	1	..	1	..	1	1	..	..	1	..	..
Sore throat	1	1	1	1	..	..	..	4	4	..	..	..	..	..	..
Stillborn	31	11	32	22	31	25	..	152	152	25	19	24	15	31	20
Syphilis	..	..	1	..	..	..	..	1	1	..	..	..	1	..	1
Tabes mesenterica	1	3	1	3	5	4	1	16	17	2	1	..	2	1	2
Teething	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Tetanus	..	..	..	..	1	..	1	..	1	1	1	..	..	2	..
Tumours	..	..	..	..	..	1	1	..	1	..	1	1	1	..	1
Strangury	2	1	1	..	1	1	1	5	6	..	2	..	..	..	..
Ulceration	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..
Unknown	6	7	8	2	17	8	32	16	48	10	5	10	7	13	7
Worms	..	..	1	..	..	..	..	1	1	..	..	1	..	..	..
Uremia	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..
Totals of the sex	392	330	387	359	526	467	1133	1328	2461	437	371	390	342	580	464
Monthly totals	722		746		993		..	..	..	808		732		1044	
From the almshouse	39		43		54		..	..	..	49		61		79	
From the country	..		3		..		..	..	..	8		5		13	
People of colour	39		65		61		..	..	..	71		42		72	

for 1858—Continued.

QUARTER, April 3, 1858.			THIRD QUARTER, Commencing July 3, 1858.									FOURTH QUARTER, Commencing October 2, 1858.									Total for the year.
			July.		Aug.		Sept.					Oct.		Nov.		Dec.					
Adults.	Minors.	Total.	M.	F.	M	F.	M.	F.	Adults.	Minors.	Total.	M.	F.	M.	F.	M.	F.	Adults.	Minors.	Total.	
2	1	3	..	..	2	1	..	..	1	2	3	1	..	..	2	..	1	2	2	4	16
6	14	20	8	3	10	4	5	4	4	30	34	..	3	1	4	5	3	..	16	16	91
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
13	59	72	29	14	23	14	21	13	11	103	114	3	8	14	8	12	12	14	43	57	315
7	23	30	2	6	2	3	5	6	11	13	24	4	2	1	6	2	7	14	8	22	100
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
1	..	1	..	..	..	..	1	1	2	..	2	..	2	..	..	..	..	1	1	2	7
6	..	6	2	2	1	1	3	3	9	3	12	..	..	..	1	1	2	4	..	4	30
42	105	147	23	17	19	22	21	12	15	99	114	18	16	23	20	52	38	36	131	167	562
13	8	21	4	2	3	3	..	3	12	3	15	1	1	1	1	4	3	7	4	11	55
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
33	33	66	23	17	12	11	17	24	52	52	104	4	10	4	7	16	13	40	14	54	273
..	4	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	1	1	..	1	..	..	1	..	..	..	1	..	1	2
..	..	..	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	2
2	..	2	2	..	..	2	1	..	5	..	5	..	..	..	1	..	..	1	..	1	9
20	..	20	7	..	9	3	10	2	30	1	31	3	1	5	1	3	..	13	..	13	85
11	99	110	31	31	55	45	29	24	11	204	215	12	10	7	7	14	8	8	50	58	463
..	7	7	2	3	4	2	..	..	1	10	11	..	1	4	..	3	1	..	9	9	28
1	2	3	..	..	1	..	..	..	1	..	1	..	2	..	..	..	..	1	1	2	10
1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
122	..	122	19	22	12	12	15	18	98	..	98	7	12	12	13	11	27	82	..	82	358
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1	1
22	1	23	5	5	5	3	6	2	25	1	26	7	4	2	5	6	8	31	1	32	105
..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1	1
10	3	13	1	..	..	1	1	1	2	2	4	2	..	1	1	..	1	4	1	5	34
3	9	12	4	3	3	..	6	2	6	12	18	2	..	..	3	1	1	..	7	7	54
1	2	3	..	..	1	1	1	..	..	3	3	..	..	..	..	..	..	..	..	..	7
2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
..	134	134	18	15	18	12	27	24	..	114	114	25	17	24	20	23	26	..	135	135	535
1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
1	7	8	4	7	3	1	4	4	2	21	23	1	..	3	2	2	..	..	8	8	56
..	1	1	1	1	2	2	2	2	..	10	10	..	..	1	..	..	..	..	1	1	12
1	3	4	1	..	2	2	1	..	4	2	6	1	..	..	..	1	..	1	1	2	13
4	..	4	..	1	..	..	..	4	4	1	5	..	..	..	..	..	..	..	..	..	10
1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
34	18	52	12	13	8	6	9	7	31	24	55	6	4	5	3	7	3	18	10	28	183
..	1	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	3
3	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
1233	1351	2584	708	602	630	571	566	459	1272	2264	3536	303	299	327	298	467	422	1086	1030	2116	10697
..	..	..	1310		1201		1025		..	..	..	602		625		889		..	..	..	..
..	..	..	58		58		51		..	..	..	30		24		27		..	..	..	573
..	..	..	9		1		6		..	..	..	3		1		3		..	..	..	52
..	..	..	70		50		46		..	..	..	31		26		38		..	..	..	611

TABLE I.—*Mortality for* 1858—Continued.

	FIRST QUARTER, Commencing January 2, 1858.						SECOND QUARTER, Commencing April 3, 1858.					
	Jan.	Feb.	March.	Adults.	Minors.	Totals.	April.	May.	June.	Adults.	Minors.	Totals.
Under 1 year	194	186	248	..	..	628	199	193	303	..	..	695
From 1 to 2 years	116	96	113	..	..	325	85	57	105	..	..	247
" 2 to 5 "	38	56	89	..	..	183	66	60	99	..	..	225
" 5 to 10 "	22	23	39	..	..	84	31	16	28	..	..	75
" 10 to 15 "	13	11	14	..	..	38	13	11	9	..	..	33
" 15 to 20 "	18	26	27	..	..	71	23	21	31	..	..	75
" 20 to 30 "	89	77	112	..	..	278	87	92	102	..	..	281
" 30 to 40 "	68	92	90	..	..	250	75	72	100	..	..	247
" 40 to 50 "	48	48	68	..	..	164	64	59	76	..	..	199
" 50 to 60 "	35	35	61	..	..	131	44	44	56	..	..	144
" 60 to 70 "	35	45	49	..	..	129	52	47	56	..	..	155
" 70 to 80 "	31	28	49	..	..	108	43	35	39	..	..	117
" 80 to 90 "	14	20	22	..	..	56	22	23	33	..	..	78
" 90 to 100 "	1	2	11	..	..	14	4	2	7	..	..	13
" 100 to 110 "	..	1	1	..	..	2	..	..	..	..	..	..
Total of monthly mortality	722	746	993	..	..	..	808	732	1044	..	..	..
Total males for the quarter	..	..	..	..	..	1305	..	..	..	..	..	1407
" females "	..	..	..	..	..	1156	..	..	..	..	..	1177
" adults "	..	..	..	1133	..	..	..	..	..	1233	..	..
" minors "	..	..	..	..	1328	..	..	..	..	..	1351	..
" for the quarter	..	..	..	..	..	2461	..	..	..	..	..	2584

	THIRD QUARTER, Commencing July 3, 1858.						FOURTH QUARTER, Commencing October 2, 1858.					
	July.	Aug.	Sept.	Adults.	Minors.	Totals.	Oct.	Nov.	Dec.	Adults.	Minors.	Totals.
Under 1 year	584	516	305	..	..	1405	173	174	231	..	..	578
From 1 to 2 years	145	156	116	..	..	417	51	55	78	..	..	184
" 2 to 5 "	95	69	61	..	..	225	40	51	68	..	..	159
" 5 to 10 "	28	17	16	..	..	61	12	9	15	..	..	36
" 10 to 15 "	22	19	18	..	..	59	13	5	13	..	..	31
" 15 to 20 "	22	40	36	..	..	98	11	10	27	..	..	48
" 20 to 30 "	99	95	119	..	..	313	65	76	94	..	..	235
" 30 to 40 "	81	57	99	..	..	237	68	62	87	..	..	217
" 40 to 50 "	59	74	81	..	..	214	54	46	80	..	..	180
" 50 to 60 "	57	52	62	..	..	171	47	38	67	..	..	152
" 60 to 70 "	49	45	39	..	..	133	31	45	37	..	..	113
" 70 to 80 "	43	37	45	..	..	125	20	33	53	..	..	106
" 80 to 90 "	20	22	22	..	..	64	10	11	31	..	..	52
" 90 to 100 "	5	1	5	..	..	11	7	8	8	..	..	23
" 100 to 110 "	1	1	1	..	..	3	..	1	..	..	..	1
" 110 to 120 "	..	..	..	..	..	..	..	1	..	..	..	1
Total of monthly mortality	1310	1201	1025	..	..	..	602	625	889	..	..	..
Total males for the quarter	..	..	..	..	..	1906	..	..	..	..	..	1097
" females "	..	..	..	..	..	1630	..	..	..	..	..	1019
" adults "	..	..	..	1272	..	..	..	..	..	1086	..	..
" minors "	..	..	..	..	2264	..	..	..	..	..	1030	..
" for the quarter	..	..	..	..	..	3536	..	..	..	..	..	2116

TABLE II.—*Mortality from Diseases of the Lungs and Air-passages.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1858.			
	1856.	1857.	1858.	1st.	2d.	3d.	4th.
Abscess, pulmonary	1	...	...	...	...	...	...
Angina pectoris	5	1	...	...	...	...	...
Apnœa	1	...	...	...	...	...	...
Asphyxia	28	15	37	...	8	15	14
Asthma	21	33	12	1	5	3	3
Catarrh	...	33	22	12	10	...	...
Collapse of lungs	1	...	...	...	...	...	...
Congestion of the lungs	97	132	78	17	26	15	20
Consumption, laryngeal	1	...	...	...	...	...	...
" of the lungs	1501	1544	1659	458	433	391	377
Croup	268	256	292	105	57	33	97
Disease of the chest	6	7	11	...	3	2	6
" lungs	37	53	23	13	10	...	...
Dropsy of the chest	61	48	140	6	40	43	51
Effusion on the chest	7	3	...	...	...	...	...
" lungs	4	4	...	...	...	...	...
Emphysema	2	1	...	...	...	...	...
Empyema	2	1	...	...	...	...	...
Gangrene of the lungs	...	1	...	...	...	...	...
Hemorrhage from the lungs	28	18	...	...	...	...	...
Influenza	2	9	...	...	...	...	...
Inflammation of the bronchi	250	179	100	24	30	24	22
" " chest	7	16	1	1	...	...	...
" " larynx	34	14	...	...	...	...	...
" " lungs	379	504	562	134	147	114	167
" " pleura	16	27	2	2	...	...	...
" " trachea	9	11	...	...	...	...	...
Ulceration of larynx	2	...	...	...	...	...	...
Totals	2770	2910	2939	773	769	640	757
Hooping-cough	77	51	153	22	49	59	23
Totals	2847	2961	3092	795	818	699	780
Total mortality, exclusive of stillborn	11722	10338	10162				
Per cent. from diseases of the lungs	22.77	28.13	30.43				
Per cent. from consumption of the lungs	12.80	14.93	16.33				

TABLE III.—*Deaths from Consumption of the Lungs, during each Month in the year* 1858, *at fourteen distinct periods of life, with the Sexes designated for each month.*

AGES.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Under 1 year . . .	3	2	...	2	1	1	...	...	...	...	...	...	9
From 1 to 2 years . .	7	2	3	2	...	...	...	...	...	...	...	...	14
" 2 to 5 " . .	...	1	3	3	2	1	...	...	...	...	...	...	10
" 5 to 10 " . .	4	1	5	2	1	3	1	1	...	...	...	...	18
" 10 to 15 " . .	3	1	1	3	3	1	3	2	1	...	...	...	18
" 15 to 20 " . .	6	16	9	11	5	11	3	19	11	6	2	10	109
" 20 to 30 " . .	45	48	58	43	50	52	41	31	64	27	45	50	554
" 30 to 40 " . .	34	33	38	39	31	37	25	26	37	32	22	44	398
" 40 to 50 " . .	25	11	15	25	19	25	16	20	18	11	15	26	226
" 50 to 60 " . .	13	9	18	14	9	12	17	12	17	15	9	25	170
" 60 to 70 " . .	10	8	16	7	9	3	7	4	7	3	12	9	95
" 70 to 80 " . .	6	1	2	3	...	2	3	...	3	1	1	5	27
" 80 to 90 " . .	...	...	1	1	...	...	1	...	1	3	...	2	9
" 90 to 100 " . .	...	...	...	...	...	...	...	...	...	2	...	...	2
" 100 to 110 " . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Male	77	63	84	86	53	81	55	47	72	45	51	92	806
Female	79	70	85	69	77	67	62	68	87	55	55	79	853
Monthly totals . . .	156	133	169	155	130	148	117	115	159	100	106	171	1659
Quarterly totals . . .	458			433			391			377			1659

TABLE IV.—*Mortality from Diseases of the Nervous System.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1858.			
	1856.	1857.	1858.	1st.	2d.	3d.	4th.
Abscess of the brain	2	...	...	...	...	...	...
Apoplexy	123	115	111	28	35	24	24
Chorea	2	1	...	...	...	...	...
Catalepsy	1	...	...	...	...	...	...
Coma	2	1	...	...	...	...	...
Compression of the brain	8	...	...	...	...	...	...
Concussion of the brain	...	7	1	...	1	...	...
Congestion of the brain	177	201	241	44	58	97	42
Convulsions	603	556	609	157	150	172	130
Coup de soleil	2	6	26	...	23	3	...
Cramp	11	10	...	...	...	...	...
Disease of the brain	107	100	134	29	49	35	21
Dropsy of the brain	242	173	261	31	87	92	51
Effusion of the brain	94	92	72	20	12	26	14
Epilepsy	24	18	2	2	...	...	...
Hysteria	3	...	...	...	...	...	...
Inflammation of the brain	329	306	315	72	72	114	57
" " tympanum	...	...	...	...	...	...	...
Irritation of brain and spinal marrow	...	...	...	...	...	...	...
Mania or insanity	12	7	9	1	2	5	1
Mania à potu	43	62	85	21	20	31	13
Neuralgia	1	...	1	...	...	...	1
Palsy	104	92	105	24	23	26	32
Softening of the brain	40	14	3	1	2	...	...
" " spinal marrow	2	...	...	...	...	...	...
Teething	29	17	12	...	1	10	1
Tetanus	13	11	13	1	4	6	2
Trismus	2	2	...	...	...	...	...
Totals	1976	1791	2000	431	539	641	389
Puerperal convulsions	2	1	...	...	...	...	...
" mania	...	...	...	...	...	...	...
Totals	1978	1792	2000	431	539	641	389
Total mortality, exclusive of stillborn	11722	10338	10162				
Per cent. of total mortality	16.87	17.33	19.58				

TABLE V.—*Mortality from Diseases of the Organs of Nutrition.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1858.			
	1856.	1857.	1858.	1st.	2d.	3d.	4th.
Abscess	40	35	31	16	3	6	6
" abdominal	...	...	...	...	...	...	...
" of the liver	1	1	...	...	...	...	...
Cancer of the stomach and bowels	4	7	...	...	...	...	...
Cholera	16	3	...	...	...	...	...
" infantum	722	534	662	3	69	575	15
" morbus	35	10	53	3	8	41	1
Cirrhosis of the liver	6	3	...	...	...	...	...
Colic	17	7	...	...	...	...	...
Constipation	3	...	1	1	...	...	...
Consumption of the bowels	3	5	...	...	...	...	...
Diarrhœa	149	119	138	12	12	104	10
Disease of the liver	27	41	68	18	25	11	14
" stomach and bowels	27	17	12	6	6	...	...
Dropsy	213	239	95	89	6	...	...
" abdominal	8	6	...	...	...	...	...
Dysentery	301	198	240	13	25	186	16
Dyspepsia	...	2	1	1	...	...	...
Gout	7	5	1	...	...	...	1
Icterus	21	11	16	6	3	3	4
Ileus	1	...	...	...	...	...	...
Inflammation of the liver	39	25	30	8	6	12	4
" " peritoneum	68	56	55	8	21	15	11
" " stomach and bowels	184	299	273	49	66	104	54
Intussusception	6	4	2	...	...	1	1
Marasmus	484	506	463	80	110	215	58
Obstruction of the bowels	9	2	2	...	2	...	...
Scrofula	61	51	54	17	12	18	7
Tabes mesenterica	36	44	56	17	8	23	8
Tuberculosis	...	...	...	...	...	6	...
Ulceration of the stomach and bowels	15	6	...	...	...	...	...
Totals	2503	2236	2253	347	382	1314	210
Total mortality, exclusive of stillborn	11722	10338	10162				
Per cent. of total mortality	21.35	21.62	22.17				

TABLE VI.—*Mortality from Diseases of the Urino-Genital Organs.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1858.			
	1856.	1857.	1858.	1st.	2d.	3d.	4th.
Albuminuria	9	7	1	...	...	...	1
Amenorrhœa	2	...	...	...	...	...	...
Cancer of mamma	2	...	...	...	...	...	...
" uterus	5	4	...	...	...	...	...
Childbed	2	7	1	1	...	...	...
Chlorosis	2	1	...	...	...	...	...
Convulsions, puerperal	2	1	...	...	...	...	...
Diabetes	...	7	3	...	2	1	...
Disease of the bladder	1	1	1	...	...	...	1
" kidneys	16	8	...	...	...	...	...
" ovaries	1	2	...	...	...	...	...
" prostate gland	1	...	...	...	...	...	...
" uterus	5	2	...	...	...	...	...
Dropsy, ovarian	1	...	...	...	...	...	...
Fever, puerperal	69	49	36	1	17	13	5
Hemorrhage from uterus	7	5	...	...	...	...	...
Inflammation of the bladder	8	9	3	2	1	...	...
" " kidneys	7	7	7	2	1	2	2
" " prostate gland	...	...	...	...	...	...	...
" " uterus	15	8	...	...	...	...	...
Mania, puerperal	...	...	...	...	...	...	...
Rupture of the bladder	...	...	...	...	...	...	...
" urethra	...	1	...	...	...	...	...
" uterus	...	...	...	...	...	...	...
Stone in bladder	...	...	...	...	...	...	...
Strangury	...	...	8	6	2	...	...
Suppression of urine	...	3	...	...	...	...	...
Syphilis	5	2	3	1	2	...	...
Tumour, ovarian	1	1	...	...	...	...	...
Ulceration of the uterus	...	1	...	...	...	...	...
Totals	161	126	63	13	25	16	9
Total mortality, exclusive of stillborn	11722	10338	10162				
Per cent. of total mortality	1.37	1.21	0.62				

Table VII.—*Mortality from Fevers.*

DISEASES.	Annual Aggregates.			Quarters of 1858.			
	1856.	1857.	1858.	1st.	2d.	3d.	4th.
Fever	10	3	...	...	...	...	...
" bilious	24	25	43	5	3	24	11
" cerebral	...	2	1	...	1	...	...
" congestive	3	5	1	1	...	...	...
" continued	...	2	...	...	...	...	...
" enteric	...	2	...	...	...	...	...
" gastric	2	4	...	...	...	...	...
" hectic	2	2	...	...	...	...	...
" intermittent	14	5	2	2	...	...	...
" malignant	...	...	...	...	...	...	...
" nervous	7	9	1	...	1	...	...
" pernicious	...	...	...	...	...	...	...
" puerperal	69	49	36	1	17	13	5
" remittent	22	23	17	2	3	5	7
" scarlet	992	704	241	120	68	20	33
" typhoid	229	175	197	51	29	57	60
" typhus	49	38	71	21	15	19	16
" " icterodes	5	...	16	...	...	16	...
" yellow	...	...	...	...	...	...	...
Totals	1428	1048	626	203	137	154	132
Total mortality, exclusive of stillborn	11722	10338	10162				
Per cent. of total mortality	12.18	10.13	6.16				

Table VIII.—*Mortality from Measles.*

DISEASES.	Annual Aggregates.			Quarters of 1858.			
	1856.	1857.	1858.	1st.	2d.	3d.	4th.
Measles	141	56	28	1	7	11	9

TABLE IX.—*Causes assigned for Death where the number is* 90 *and upward.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1858.			
	1856.	1857.	1858.	1st.	2d.	3d.	4th.
Apoplexy	123	115	111	28	35	24	24
Casualties	158	118	191	60	43	50	38
Cholera infantum	722	534	662	3	69	575	15
Consumption of the lungs	1501	1544	1659	458	433	391	377
Congestion of the brain	177	201	241	44	58	97	42
" " lungs	97	132	...	...	...	...	...
Convulsions	603	556	609	157	150	172	130
Croup	268	256	292	105	57	33	97
Debility	430	378	457	120	88	133	116
Diarrhœa	149	119	138	12	12	104	10
Disease of the brain	107	100	134	29	49	35	21
" heart	179	222	215	61	54	50	50
Dropsy	213	239	95	89	6	...	...
" of the brain	242	173	261	31	87	92	51
Dysentery	301	198	240	13	25	186	16
Effusion on the brain	94	92	...	...	...	...	...
Erysipelas	100	95	...	...	...	...	...
Fever, scarlet	992	704	241	120	68	20	33
" typhoid	229	175	197	51	29	57	60
Hooping-cough	...	...	153	22	49	59	23
Inanition	114	...	91	21	20	34	16
Inflammation of the brain	329	306	315	72	72	114	57
" " bronchi	250	179	100	24	30	24	22
" " lungs	379	504	562	134	147	114	167
" " stomach and bowels	184	299	174	49	66	104	54
Marasmus	484	506	463	80	110	215	58
Measles	141	...	...	...	...	...	...
Old age	172	195	358	56	122	98	82
Palsy	104	92	105	24	23	26	32
Smallpox	390	...	...	...	...	...	...
Stillborn	612	557	535	152	134	114	135
Unknown	257	291	183	48	52	55	28
Drowned	105	134	127	14	38	57	18

TABLE X.—*Deaths, with the Sexes, for each Month in the Year, and the Number at Sixteen Distinct Periods of Life, with the Percentages to Total Mortality, Exclusive of the Stillborn—also the Stillborn Children for each Month, and their Sexes.*

Months.	Stillborn.			Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	110 to 120.	Total.
	M.	F.	Total.																					
January	31	11	42	392	330	228	173	194	116	38	22	13	18	89	68	48	35	35	31	14	1	...	...	722
February	32	22	54	387	359	208	190	186	96	56	23	11	26	77	92	48	35	45	28	20	2	1	...	746
March	31	25	56	526	467	282	248	248	113	89	39	14	27	112	90	68	61	49	49	22	11	1	...	993
April	25	19	44	437	371	218	199	199	85	66	31	13	23	87	75	64	44	52	43	22	4	...	...	808
May	24	15	39	390	342	214	144	193	57	60	16	11	21	92	72	59	44	47	35	23	2	...	...	732
June	31	20	51	580	464	322	253	303	105	99	28	9	31	102	100	76	56	56	39	33	7	...	...	1044
July	18	15	33	708	602	486	410	584	145	95	28	22	22	99	81	59	57	49	43	20	5	1	...	1310
August	18	12	30	632	569	443	374	516	156	69	17	19	40	95	57	74	52	45	37	22	1	1	...	1201
September	27	24	51	566	459	305	247	305	116	61	16	18	36	119	99	81	62	39	45	22	5	1	...	1025
October	25	17	42	303	299	151	149	173	51	40	12	13	11	65	68	54	47	31	20	10	7	...	...	602
November	24	20	44	327	298	160	144	174	55	51	9	5	10	76	62	46	38	45	33	11	8	1	1	625
December	23	26	49	468	421	229	203	231	78	68	15	13	27	94	87	80	67	37	53	31	8	...	...	889
Totals	309	226	535	5716	4981	3246	2734	3306	1173	792	256	161	292	1107	951	757	598	530	456	250	61	6	1	10697
Per ct. of totals				53.45	46.55	30.35	25.62	37.25	11.54	7.78	2.52	1.57	2.86	10.89	9.35	7.45	5.88	5.21	4.48	2.46	0.60	.05	.009	

Table I. The whole number of deaths returned for the year has been 10,697. This amount indicates a falling off of 201, or nearly 2 per cent., from the deaths of 1857. Fixing the population at 600,000, which, I believe, is a fair estimate, the death returns furnish a favourable indication of the health of our city, and give one death to every 56 of its inhabitants.

Of the deaths recorded, 5,715 were males and 4,982 females, presenting an excess of deaths in the male sex equivalent to 14.70 per cent. For the last ten years the mortality records of Philadelphia give an excess of male deaths equal to 15.58 per cent. The average of deaths for each quarter of the year is 2,674; for each month $891\frac{5}{12}$; for every day $29\frac{1}{3}$.

According to the seasons of the year, so are the rates of death determined for each quarter. The first quarter furnished 2,461, the second 2,584, the third 3,536, and the fourth 2,116. The second or spring quarter yielded an increase of 5 per cent. over those of the first quarter, embracing two of the winter months. The third quarter, which rates the highest in mortality, and includes the summer and autumn in part, gave 36.76 per cent. more than the second quarter, and 43.60 per cent. than the first quarter. The fourth or last quarter, in which the deaths were reduced to 2,116, showed a decrease of 40.15 per cent. from those in the third. A large proportion of the increase of mortality in the third quarter may be safely charged to the diseases of the organs of nutrition, embracing many of the zymotic class.

Appended to this table will be found the number of deaths returned from the almshouse, or Blockley Hospital; they amount to 573. Also the mortality among the coloured population, which was 611. The number of interments in the city burial-grounds of bodies brought from other counties and States amounted to 52. I make these statements from the record, but their accuracy is very doubtful. From a more reliable source I learn that while there has been an annual increase of the inmates of the Blockley Almshouse—our great pauper establishment—the rate of mortality shows a reduction from 21.89 per cent. in 1854 to 14.50 per cent. in 1858.

In order to arrive at a safer estimate of the deaths from diseases alone, it seems proper to deduct those in the table registered under external causes, as well as those from debility, malformation, old age, unknown causes, stillborn, and those from the country, amounting in all to 1,967, or 18 per cent. of the whole. By this calculation we reduce the deaths from certified diseases to 8,730. Taking this as the correct standard of deaths from disease during the year, and it gives us only 1 death in every 67 of the population.

Table II. presents the deaths returned to the health office from those diseases to which the lungs and air-passages are liable. They amount to 3,092,

or 30.43 per cent. of the entire number of deaths for the year.[1] This percentage is higher by 2.30 per cent. than the preceding year, and shows an increase of deaths from this class over any former year, in proportion to the annual mortality.

The deaths from croup have increased 14 per cent. over those for 1857, and amount to 292, or 9.44 per cent. of the mortality from diseases of the air-passages. The deaths in the first and fourth quarters, which include the winter months, more than double those for the second and third quarters of the year. The steady increase of croup, according to the tables of mortality for this city, cannot have escaped the attention of the Fellows of the College. It is one of those diseases peculiar to childhood, and most prevalent between the ages of one and five years; it is not often met with in early infancy, although during this year 110 of the deaths were under one year of age. Boys are said to be more liable to croup than girls, according to the known statistics of writers. The present year fully confirms this opinion. 160 of the deaths were boys and 130 girls, showing an increase of 23½ per cent. of the former over the latter. The distinct character of the disease causing death, whether pseudo-membranous or catarrhal croup, is rarely designated in the certificate, and hence it is impossible to ascertain the comparative mortality of the two forms of this frequent and too often fatal disease among children. A more complete system of classification of diseases, as well as of registration of deaths, would, if practically carried out, supply a necessary want in our mortality statistics of this as well as other diseases.

The deaths from dropsy of the chest present an increase of 191.73 per cent. above those recorded for 1857. This augmentation will be found to belong to the last half of the year, and occurred principally among adults. The cause in all probability may be looked for in the unusual prevalence of inflammatory affections of the bronchial passages and lungs, the result of a catarrhal epidemic influence in the atmosphere.

This catarrhal disease furnished 140 deaths, or 4.52 per cent. of the mortality assigned to this class.

Inflammation of the lungs contributed 562, or 18 per cent., of the deaths in this table, and inflammation of the bronchia 100, or 3 per cent. Only two deaths are ascribed to inflammation of the pleura, one to inflammation of the chest, none to that of the larynx or trachea. This is an unusual occurrence.

Hooping-cough will be seen to have supplied more deaths than for the two previous years combined, viz., 153, an increase of 200 per cent. over those for 1857.

The extreme prevalence of catarrhal diseases in our city during the last

[1] It will be understood that the calculations in these tables having reference to the entire mortality are prepared by excluding the stillborn, unless otherwise expressed.

four months of the year, amounting almost to an epidemic influenza, may in some degree account for the increase of deaths as indicated in the table.

Table III. In this table I have set apart the deaths from consumption of the lungs which have been recorded during the year. I have also designated the sexes, and have shown the total of deaths for every decennial period.

The annual mortality from this dreaded scourge of the human family is placed at 1,659. Of this number, 806 were males and 853 females; the excess of deaths among females is peculiar to all mortality tables in all places. In the present instance it was equal to about 6 per cent.

The deaths from this disease contribute more than half of those classed with diseases of the lungs and air-passages, while they furnish 16.33 per cent. of the total mortality.

The increase of the deaths from consumption above those for 1857 is equal to 7.45 per cent.

Estimating the population at 600,000, the ratio of deaths to population was as 1 to every 361.66, or 2.76 in every thousand.

According to this table, and it does not differ materially from others that I have prepared for this region, the decennial period in which the deaths from consumption of the lungs are most frequent is that between 20 and 30 years. The next in frequency is between 30 and 40. This result would confirm the opinions of Sir James Clark and of Louis on this point.

There is no period of life, however, even from infancy (which interesting season is thought to be very prolific of consumption) down to extreme old age, in which there will not be found recorded, deaths from the ravages of this hereditary pestilence. In the accompanying table you will find 9 deaths under 1 year, and 2 over 90 years; while the intervening periods gave larger proportions, marking a gradual increase up to 30 years, when they as gradually declined.

The highest monthly mortality was in December, 171; the next March, 169; the next September, 159. October and November furnish the lowest number—100 in the former, and 106 in the latter.

Table IV. contains the numerical estimate of the deaths during the year from diseases appertaining to the nervous system. They amount to 1,990, or 19.58 per cent. of the entire mortality.

Under the separate titles of convulsions and congestion, dropsy, inflammation, and disease of the brain, will be found 1,560 deaths. These diseases belong peculiarly to children, and we may safely infer that 78 per cent. of the deaths from affections of the nervous system are contributed by our infantile population.

Convulsions, by itself, gives a large proportion, equal to 609, or 6 per cent.

Twenty-six deaths are noticed from coup de soleil, or sunstroke. Twenty-three of the deaths occurred in June, and of these, twenty-one were in the last week of the month; during this term, the thermometer stood at its highest point for the year, 96½ on the 28th. These deaths were the result of the extreme heat of the season.

The deaths from mania-à-potu were 85, an increase of 37 per cent. above those for 1857, and a larger annual mortality than for several years back.

Table V. enumerates the deaths for the year from diseases peculiar to the organs of nutrition, amounting to 2,253, and equal to 22.17 per cent. of the entire mortality.

Under this head is placed cholera infantum, a summer disease of infancy, confined principally to the crowded suburbs and badly-ventilated districts of our large cities and towns. The third quarter of the year, embracing July, August, and September, together with the month of June, furnishes almost the entire mortality. The whole number for the year was 662, equivalent to about 14 per cent. of the deaths for the year, in children under five years of age.

Marasmus (?).—Under this term will be found 463 deaths; the months of June, July, August, and September furnishing 262 of this number. This also is one of those diseases—or, more properly, results of disease—peculiar to children, and found prevailing extensively in large cities during the warm season. It seems to be a favourite name with many physicians, and an easy mode of certifying to deaths of a chronic form in children where doubt exists in the mind as to the real nature of the case. I believe it to be the sequel of several varieties of disease of the organs of nutrition in children; and, with that understanding, the numerous deaths ascribed to marasmus obviously belong to those affections, and are placed to their account.

The third quarter of the year, which includes almost the entire warm season, contributes a large portion of the deaths under this head. It will be seen, also, that the increase is from those affections which are generally classified with the zymotic or epidemic. The entire number for the quarter is 1,314, constituting 58 per cent. of the deaths in this class; while the epidemic diseases alone, in the quarter, are 1,093, or 48 per cent.

Table VI. Here will be found the deaths assigned to those diseases which belong to the kidneys, bladder, and the organs of generation. They consist, this year, of a limited percentage when compared with the whole mortality. There is a falling off of one-half from those of last year; they number 63. Of these, puerperal fever deaths make 36, or more than half. In 1857 the largest proportion of deaths from this fever were in the first quarter, the coldest period of the year. This year, almost the entire mortality was in warm weather.

Table VII. The mortality from fevers during 1858 is shown in this table.

A comparison with the fever table of 1857 is the best evidence of the exemption of our city in 1858 from the destructive influence of this class of diseases upon its citizens. The former year they numbered 1,048, in the latter 626, presenting a decrease equal to 40 per cent. In 1856 the proportion of deaths from fevers to the entire mortality was 1 in 8; this year (1858) they are only 1 in 16.

This great difference is explained in part by the falling off in the deaths from scarlet fever. In the two years preceding 1858 they amounted to 1,696; during this year they were only 241.

To the entire mortality, fever deaths rate only 6 per cent.

Typhoid and typhus fevers have increased in the number of their deaths since 1857 at the rate of 25 per cent.

If the record of deaths be considered a fair index, our city has been peculiarly exempt from the ordinary forms of autumnal fevers. The few cases I have observed invariably partook of a mild type, and were easily managed. Intermittent fever and its varieties, considered as of miasmatic origin, which were exceedingly prevalent, a few years ago, in the urban as well as in the suburban districts during the fall months, were neither fatal nor numerous. It has been remarked that this more common type of fever seemed to be gradually disappearing from our vicinity as an endemic, or to be yielding in form to those of an asthenic character, as the typhoid or enteric.

After an experience of thirty-four years, and a somewhat familiar acquaintance with the endemics of the county, I have never known the outer districts of our city to have enjoyed a larger share of health than during the past year, especially as regards the ravages from fever. The common bilious fevers have been few in number; and when found, their active inflammatory type was doubtful, and features were presented, which corresponded with those above alluded to, of an enteric character.

One of the local causes of this comparative immunity of the suburban districts of the city from miasmatic fevers, in addition to the meteorological or climatic changes may be found, especially during the past two years, in the almost entire suspension of those rapid and extensive improvements which for years have been in progress along the outskirts of the city. In the prosecution of these changes, streets were opened and graded, which required the digging down of embankments and the filling up of excavations; the removal of earth was needed also from cellars dug for new buildings, and in the levelling of lots.

The great amount of loose and new earth, thus exposed to the influence of heat and moisture, and the decomposition of vegetable remains contained therein, in connection with numerous collections of stagnant water, could not do otherwise than give rise to the exhalation of malaria, which, with other causes, highly favoured the appearance and extensive prevalence

of fevers. When the money panic of 1857 swept over the country, our city experienced its prostrating influence; business suddenly declined, property depreciated in value, building improvements at once ceased, and with these reversions an abatement of miasmatic fevers followed.

Sixteen deaths are recorded from typhus icterodes. As far as I could obtain correct information, these deaths were from undoubted cases of yellow fever. They all occurred in the months of August and September.

About the middle of July there was considerable anxiety in the community, in consequence of the arrival and detention at quarantine of a number of vessels from ports in the West Indies, where yellow fever was prevailing at the time of their sailing. Several of these vessels had cases of the fever on board in a most malignant form, when they dropped their anchors opposite the lazaretto. They received a visit from the physician at the station, Dr. L. S. Filbert, and the sick were immediately removed to the hospital. Other vessels had lost several of their seamen with yellow fever on the voyage, at sea, or in foreign ports, while others again arrived with their crews in health, having had no sickness during the voyage, but were detained for purification. In a few days, cases of yellow fever were received into the hospital from some of these vessels.

Every sanitary precaution was strictly observed by the officers at the station, to prevent the spread of the disease among the crews of the fleet riding quarantine, and to preserve the health of those persons remaining on board the infected vessels. These were moored at some distance north and east of the others, which were detained, not on account of sickness, nor because they came from infected ports, but because it was according to law.

Dr. Filbert received into the hospital from time to time, in all, twenty-seven cases of yellow fever. Four of these died; two within ten hours after admission. Two of the four had black vomit. This was a mortality of only fourteen per cent. to cases, and shows a result more favourable than is usual. The treatment followed by the doctor in these cases he has had the kindness to forward me, which I herewith transcribe in his own words.

"The treatment, which I am happy to say has proved very successful in my hands, was as follows: As soon as the patients (except the two who arrived in a dying condition) were received into the hospital, I had them immersed in a hot mustard-bath, after which, upon being wiped dry, they were put to bed, well covered with blankets, and bottles of hot water placed around their bodies and lower extremities, with the intention of producing diaphoresis. Entire rest in the recumbent position was strictly enjoined, and maintained throughout the treatment. As early as possible I administered the following remedies: R.—Hydr. chlor. mit. gr. vj; sulph. quin. gr. v; pulv. nitr. potas. gr. v; pulv. ipecac. gr. $\frac{1}{3}$. This prescription was repeated every three hours. The treatment had the desired effect of

producing copious perspiration. In from three to four days the fever abated.

"My object was to give a sufficient amount of calomel to move the bowels without the addition of other purgatives, at the same time to lay a mercurial foundation at the start. It may not be out of place to say, that in no instance did my patient give me trouble where mercurial action could be produced in due time. In those cases where there was much gastric distress, I applied mustard to the epigastric region. Ice was allowed, as much as the patient desired."

The great solicitude felt by the lazaretto physician, for a faithful discharge of his duties under the trying circumstances in which he found himself placed, and his unremitted attention to the sick, were calculated to depress the energies of his nervous system; while his frequent visits to the infected ships from day to day, in order that those left on board might have his protection, exposed him to the influence of a poisoned atmosphere, and he contracted the fever, which proved to be a mild case. He convalesced on the sixth or seventh day of his sickness.

Unfortunately two infected vessels escaped the vigilance of the officers at the lazaretto, and either evaded the laws or the restrictions of the Board of Health, or else through a misunderstanding, had received permits to leave and thus found their way to the city, where they discharged their cargoes and their crews. In a few days after their arrival, several cases of yellow fever made their appearance among the persons employed about these vessels, and in the vicinity of their moorings.

It has not been possible to ascertain the true number or exact locality of cases of yellow fever that were under treatment during its limited appearance in our city. The Board of Health, as I learn, preserved no record of the cases reported to them, and, besides, there were instances of the disease that never came to their knowledge.

From the most reliable information, there were between thirty and thirty-five cases. A number of them occurred in the vicinity of South and Front Streets. Several were in Kensington; while a few were under treatment in one or two of our public hospitals. Many of these cases could be traced to direct communication with the atmosphere of the vessels that had reached our wharves, coming directly from yellow fever ports, without having undergone quarantine; while with others no satisfactory information could be obtained as to the origin of the disease.

Twenty-five of these cases of fever were under the care of Dr. John Gegan, of South Front Street. His first case occurred two days after the arrival of the first vessel at Lombard Street wharf, in a baker, residing in Lombard Street near Front, who told the doctor he had been about the wharf for several days previous to his sickness. Five of the cases under the care of Dr. Gegan died—a mortality of twenty per cent. All of his

cases, with the exception of the night inspector of one of the above infected vessels, were in houses east of Second and south of Lombard Streets.

It becomes, therefore, a difficult question to decide upon the origin of these cases of yellow fever. Were they the offspring of a foreign poison, introduced by vessels from the West Indies, or are they to be regarded as the production of domestic causes? Were they the result of epidemic or endemic influences? That they were of sporadic or accidental origin, will, perhaps, be admitted. That the disease neither lasted until a frost should banish it from our midst, nor spread to any extent, are facts well known. The hygrometrical and the thermometrical conditions of the atmosphere were by no means favourable to its production, or administered to its extension; hence, the activity of the cause, whatever it might be, was soon exhausted for the want of these and other propitious circumstances.

The extensive prevalence of scarlet fever in our city for a number of years past, the fearful ravages it has committed by death in that portion of the population which, of all others, is the most interesting while it is the most cherished, and the increased attention that has been bestowed upon it of late by writers on medicine, would seem to claim for it, at our hands, rather more than an ordinary notice.

For this purpose I have taken the trouble to compile, from the mortality records, the following table, which gives us the deaths from scarlet fever in our city for a period of twenty-eight years, from 1831 to 1858, inclusive, with the ages and sexes for each decennial period:—

YEARS.	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	Total.
From 1831 to 1840, ten years	968	1036	945	1010	181	353	915	433	58	15	25	14	4	6	..	..	2004
" 1841 to 1850, ten "	1267	1318	1255	1284	249	461	1216	545	52	16	26	12	6	2	..	..	2585
" 1851 to 1858, eight "	1740	1735	1712	1707	329	687	1574	722	82	25	33	17	4	..	1	1	3475
	3975	4089	3912	4001	759	1501	3705	1700	192	56	84	43	14	8	1	1	8064

During the twenty-three years preceding 1831, beginning with 1807, when the first annual statement of deaths in our city was published by the Board of Health—as prior to this event we have no authentic account of the mortality—there were only 162 deaths from scarlet fever. Within this interval of time there was a series of years, from 1812 to 1818, that a death from scarlet fever was unknown to the record; and from 1807 until 1812, only 13 deaths are to be found on the register.

In 1830 the deaths increased to 40, from 9 the previous year, and from the following year, 1831, when, as the above table indicates, they run up to 200, we may date the advent of this wide-spread and severe exanthe-

matous fever. Not only has it prevailed extensively, and with marked fatality, but during each successive decennial period it has steadily increased, provided the increased ratio of deaths be taken as the index of its prevalence.

All writers agree that no period is fixed for the duration of scarlet fever when it makes its appearance in an epidemic form, and it would not be an assumption of authority to assert, that the past twenty-eight years have proved a memorable epidemic cycle, especially when contrasted with the preceding period of twenty-three years, during which term only 162 deaths from this disease were returned out of 56,000 deaths. It has been conjectured by Dr. Emerson that in the period of exemption referred to, there may have been deaths from scarlet fever reported under the title of sore throat, which in all probability was the case. Making every allowance, however, for the 355 additional deaths thus recorded, it would not, in my opinion, change the proportional mortality between the two periods—since the like conjecture, for the returns of deaths from scarlet fever during the epidemic visitation, by other and vague terms, would far exceed those of the former period.

A careful inspection of the table will reveal several points of interest involved in the history and character of this dreaded malady. That it is a disease of infancy and childhood, scarce a doubt need be entertained. Of the 8,064 deaths which have occurred in this city since 1831, 7,665, or 95 per cent. were under ten years of age. Of the deaths recorded beyond 20 years, or in adult life, there were 151, not quite 2 per cent. Eight of these were between 50 and 60, one between 60 and 70, and one between 70 and 80 years of age, proving that the disease may attack the aged and terminate fatally.

Some diversity of opinion has been expressed as to the influence of scarlet fever upon the sexes. While one author decides that girls are more liable to it than boys, another claims the influence for the boys; while a third believes that under puberty, sex exerts no influence whatever, but beyond that age it is most frequently found among females.

It may be thought impossible, with our present imperfect and limited means of observation, to decide correctly this question. Should it never be settled, it is not one of vital importance. Nevertheless, I am of opinion that females are more subject to the disease than boys. The evidence for this opinion will be found in the accompanying table, unless it can be satisfactorily shown that the result there given of the excess of female deaths, was occasioned by a less resistance to a fatal termination of the disease, owing to their greater delicacy of conformation.

Of the deaths recorded in this table, 4,089 were females, and 3,975 were males, presenting an excess equal to 3 per cent. of female deaths over those in the male sex. This result, while it may conflict with the estimate of a

number of able writers, is in accordance with the experience and decision of the Registrar-General of England.

Table VIII. For several years a separate table has been prepared for measles, smallpox, and varioloid. The falling off in the deaths from smallpox and varioloid since 1855 has rendered a distinct notice unnecessary. Only seven deaths are registered from smallpox during the entire year, and of these victims, five were children. Not a death took place from varioloid. For measles the table has been continued, although it might with propriety be dispensed with, in the present instance, as the deaths from this exanthem have reached only 28 during the year. No epidemic of measles has prevailed, and the few isolated cases which made their appearance were generally mild in character. The last two quarters of the year show an increase in the deaths, the disease no doubt having been complicated with catarrhal inflammations, which were quite prevalent.

Table IX. In this group are those only, in which the deaths have exceeded ninety for the year.

A glance at the table will indicate a change in favour of 1858, as to its comparative health, with the results of the previous years appended thereto.

Consumption of the lungs produces the highest mortality. Cholera infantum is the next in the scale.

Disease of the heart, which in all probability stands for a variety of distinct morbid affections, the true diagnosis of which has either been overlooked through indifference, or waived in the absence of a knowledge of exploration according to modern investigations, numbers 215 of the entire mortality from diseases of the organs of circulation, which were 248.

The remarkable increase of deaths from old age, seen in this table, numbering 358, when compared with those in former years, will not escape attention. They more than double the number for either 1855 or 1856, and nearly double those for 1857. I shall not attempt any explanation, as it may be purely an accidental occurrence, although it might serve as an argument in favour of an approximation towards a higher average of human life in our city.

Table X. This is a useful table for the statistician. It presents at first sight an analysis of the annual mortality, numerically arranged. The stillborn, with the sexes for each month, are given. The deaths per month at each of the fifteen distinct periods of life, with the sexes, and the number of boys and girls under twenty years of age, are also enumerated. A calculation of percentages of deaths for each month to the whole number has been prepared, as well as for the several designated periods of life, all of which will be found available in making up comparative tables.

The stillborn children amounted to 535, which would be equal to 5 per cent. of the entire mortality for the year. This is a more favourable comparison than was presented last year, or for the seven previous years. The male stillborn exceeded the female by 36.72 per cent. This fact of the excess of stillborn males is noticed in the statistics of other cities.

The largest number of stillborn occurred in March—viz., 56; the lowest in August—viz., 30. The coldest months yielded the greatest amount of stillborn children.[1]

The mortality in children, or those deaths which have occurred before the twentieth year of life,[2] exclusive of stillborn, were 5,443, and make up 53.38 per cent. of the deaths. Those under one year, deducting the stillborn, amounted to 2,767, equivalent to 27.25 per cent. of the mortality, and constitute more than half of all the deaths under twenty years.

The deaths under five years amounted to 4,731, or 46.40 per cent. of the annual mortality. Between five years and twenty they were less than 7 per cent.

The mortality in infancy and childhood in our city will compare favourably with that of other large cities; still, the large number of deaths at these interesting periods of life demand a far greater share of attention from the medical profession and the corporate authorities than they now receive. It is a fact, and cannot be denied, that the prevalent causes for this heavy mortality in early life are preventable. The improper hygienic management of children, with regard to their diet, dress, exercise, and air, together with a neglect by the civil authorities of the enforcement of sanitary police measures, are mainly the agents that lay the foundation for the existence of infantile diseases, and thus invite this early harvest of death.

In adult life, that decade between 20 and 30 gave the highest mortality; it was equal to 10.89 per cent. The deaths beyond this period gradually declined, up to extreme old age. Two hundred and fifty deaths, or 2.46 per cent., took place in the decennial period between 80 and 90, sixty-one between 90 and 100, and seven died in their centennial term, one of whom was beyond 110 years.

The proportion of deaths in advanced life, when compared with the total mortality, and with the like proportion in former statistics, shows that the probabilities of life have been increased during the year. In the previous year (1857), although the mortality was greater in amount than this year, yet the aggregate ages were only 221,327 years, which made the duration of life $20\frac{1}{3}$ years; whereas this year (1858) the sum of the ages amounted to 238,585, which would increase the average existence of life to $23\frac{1}{2}$ years.

[1] No estimate can be formed of the number of stillborn to the births in our city, as the Board of Health have failed in securing the birth statistics for several years.

[2] In the tables these deaths are classified as minors, and those above twenty as adults.

Adhesive Plaster in maintaining Counter-extension in the Treatment of Oblique Fractures of the Lower Extremity.—Dr. GILBERT read the following paper on the use of adhesive plaster in maintaining counter-extension in the treatment of oblique fractures of the thigh and of the leg:—

From the time of Hippocrates to the present these fractures have occupied the mind of the profession to a greater extent perhaps than any other; yet surgeons of the largest experience, who occupy the most prominent positions in the profession, have told us, and even now tell us, that a large majority of the cases of fracture of the femur result in shortening and permanent lameness. John Bell said: "The machine is not yet invented by which a fractured thigh can be perfectly recovered." Benj. Bell said: "An effectual method of securing oblique fractures of the thigh-bone is perhaps one of the greatest desiderata in modern surgery." Ferguson says: "The fractured thigh is almost invariably shorter than its fellow." Chelius says: "Fractures of the thigh are always difficult of cure. There is most commonly deformity and shortening of the limb." With these views his learned British and American editors fully agree. Malgaigne says, in the work recently translated by Dr. J. H. Packard of this city: "When the two ends cannot be made to oppose one another to counteract the muscular contractions, it is impossible to preserve the normal length of the limb, whatever may be the apparatus or method employed." Again: "When the fragments remain in contact, or when we can replace them and keep them so by means of their serrations, it is easy to cure a fracture of the femur without shortening; in the absence of these two conditions the thing is simply impossible." Dr. V. Mott, of New York, testified, in a trial for malpractice, a few years ago, that "more or less shortening of the limb is uniformly the result after fractured thigh, even under the most favourable circumstances;" and Drs. Parker, Post, Cheeseman, and others, sustained the same view in their testimony. Dr. F. H. Hamilton, of Buffalo, N. Y., after furnishing the most interesting and reliable statistics of the results of the treatment of this fracture on record, says: "I declare, in the most positive manner, that I have never obtained like results [such as claimed by those who profess to have made perfect cures] either in the use of my own apparatus or with that of others." To this almost any amount of corroborative testimony might be added.

A full history of all the contrivances invented and used in the mechanical treatment of this fracture, if written, would constitute a large volume, every page of which would impress the mind of the reader with the fact that the treatment of this lesion is surrounded by difficulties of the gravest character.

The retentive apparatus of the ancients consisted of bandages of cerecloth and some rude attempts in the use of splints and fracture-boxes, in the straight position, depending entirely upon lateral pressure for the maintenance of the fragments in apposition. Percival Pott, who wrote after the middle of the eighteenth century, was the first to recommend the bent

posture of the fractured limb. His object was to relax the muscles, and thus obviate their mischievous effects in causing shortening. He laid the limb in carved angular splints, and placed the patient upon his injured side, resting the sound limb upon the fractured one. Dupuytren, Astley Cooper, Chas. Bell, and others, improved upon this by introducing the double inclined plane, and placing the patient upon his back, thus using the body to keep up counter-extension by its weight. Desault had previously adopted the straight method, adding a long outside splint, with extending and counter-extending bandages. These two general methods, viz., the angular and the straight, have been varied in every conceivable manner by practitioners of all countries, each projector of a new plan supposing that a great improvement had been achieved, only, however, to be superseded by the modification of some other surgeon. At present it is conceded pretty generally, that, in the greatest number of cases, the extended plan, using an outside splint long enough to reach up nearly to the axilla, meets all the indications most satisfactorily. As in most of our surgical procedures, the simplicity and constant availability of this plan constitute the measure of its value. The common apparatus is composed of a long splint, having a block projecting inwards six or eight inches below the sole of the foot; extending and counter-extending bandages; cotton batting, or junk bags, and common roller. Short splints may or may not be used. In the use of this all the muscles are equally relaxed, and their contractions are controlled more effectually by the extending and counter-extending forces employed than by any other method in ordinary use. Although all the indications *seem* to be met by this simple apparatus, yet statistics abundantly prove that many failures occur in practice. This failure of complete success by the straight method has long been attributed by surgical writers to a want of coincidence between the line of counter-extension and the axis of the limb and body. To remedy this, various modifications in the application of the counter-extending power have been proposed, and alterations made, in the several forms of apparatus. Dr. Physick improved upon the plan of Desault by extending the outside splint to the axilla, which, as will appear presently, was a real improvement. Van Houte attached a bar of wood, which projected at right angles from the upper end of the splint, and extended to the middle of the lower part of the abdomen. To this the counter-extending bandage was fastened so as to make traction in a line coinciding directly with the axis of the body. Volpe added an inner splint, and joined this to the inner extremity of the cross-piece, as a further improvement. Others, since then, have been influenced by the same idea in constructing their apparatus, some of whom abut the upper extremity of a long inside splint against the tuber ischii.

It ought to be borne in mind, however, that in a well-formed lower extremity the inner condyles of the thigh-bones come together at the knees; whilst the trochanters, by the interposition of the pelvis and the necks and

heads of the thigh-bones, are about twelve inches asunder. The shafts of the tibiæ are usually parallel with each other, and their axes, when extended upwards, coincide very nearly with the axis of the trunk. The axis of the femur, however, which diverges from the knee upwards and outwards, forms an angle with the general line of the axis of the leg and body. The application of the counter-extending power, therefore, to coincide with the axis of the femur, should be made from the perineum upwards and outwards, and not in a line directly upwards. It is very evident, then, that Dr. Physick's modification of Desault's apparatus disposes of the extending and counter-extending forces in a manner which insures their coincidence with the axes of the thigh and leg more accurately than any other plan yet proposed, and is decidedly the most useful so long as loose or unadherent bandages are used for counter-extension. The extending power exerted directly downwards, coinciding with the axis of the leg, and the counter-extending power upwards and outwards, coinciding with the axis of the femur, as nearly as may be, will exert their influence in controlling the muscular contractions more effectually, and in retaining the fragments in apposition more accurately, than if the two forces acted in a line with the axis of the trunk. The salient angle formed by the axes of the femur and tibia, where they meet at the knee, is concealed by the arrangement of the muscular mass placed at the upper and inner part of the femur.* The inequalities of the external contour of the limb are filled up by the wadding, or junk bags, so that the splint supports the whole extremity firmly, although extension and counter-extension are not in the same line with each other.

Why, it may then be asked, are there so many imperfect cures, even by the use of this most approved method in the hands of the most skilful? Why are limbs shorter, and patients lame for life, when we possess an apparatus which appears to meet so fully and clearly every indication as a means of retention after reduction and coaptation of the broken bone? These questions may be answered more satisfactorily after we consider briefly some of the anatomical elements which are involved in this lesion.

The femur is the largest bone of the skeleton. It is simple in its outline, and well defined in all its parts. It constitutes the upper half of the column upon which the body reposes, and, at the same time, is one of the chief agents through which all the movements of the body are performed. These diverse functions of absolute rest and free motion are provided for by the form and position of the bone. The gentle forward arching of the shaft, the neck and head diverging from this at nearly a right angle, and the salient inclination of the entire bone downwards and inwards from the sides of the pelvis, admirably fit it for the extensive and varied movements which it is destined to perform; whilst its strong cylindrical body, terminating at each extremity in large processes, forming its base and capital, fits it equally well to perform the office of a column for the support of the

trunk. The muscles appropriated to the thigh-bones are remarkable for their number, size, diverse traction, and far-reaching attachments, upwards above the pelvis, and downwards to the foot. When we consider the fact that these, in their aggregate, comprise nearly, if not fully, one-half of the muscular mass of the entire system, the magnitude of their power in steadying and moving the bone becomes very apparent. Between the bone and these muscles, during their integrity, there is the most accurate adaptation of function, and the most perfect harmony of action.

When, however, fracture in any part of the continuity of the former, takes place, all this beautiful symmetry of form and reciprocity of action is destroyed. The contractions of this most voluminous and energetic of all the muscular combinations in the system are powerfully and continually exerted in effecting derangement of the fragments, and disturbing their quiet apposition. In view of these anatomical and physiological facts, we ought not to be surprised, then, that the experience of all the world forces upon us the conviction that these powerful muscular contractions are not sufficiently controlled, to make cures without shortening, by the provision of any apparatus hitherto in use for counter-extension. I admit that all desirable and necessary power is at our command through the use of any of the most approved modifications of apparatus on the extended plan; but its tension cannot be endured by the patient long enough, at the seat of counter-extension, to secure union without deformity. When well adjusted, the limb is restored to its normal length, and the patient feels quite comfortable for a time. To the eye of the observer every indication appears to be fully met; but the loose counter-extending bandage, or the crutch-head of the inner splint, no matter how wide a surface they were made to occupy when first applied, will narrow down under the powerful contractions of the muscles, the pressure will become intensely concentrated over the bony points of the pelvis underlying the line of their application, and insupportable pain will be the consequence. In a large proportion of cases, in which the patient resolves to indure the pain, abrasion, excoriation, and even sloughing, will be produced by these counter-extending means, no matter how soft the cushion or unirritating the materials of which they are composed. It is a well-authenticated fact that Gen. Lafayette owed his lameness to excoriation and deep-seated ulceration produced in his perineum and groin by the counter-extending means used in the treatment of his fracture. He doubtless obeyed the orders of his surgeon not to disturb the apparatus, and endured his sufferings like a soldier, regardless of consequences. There are very few patients, however, so obedient. Malgaigne prefers the apparatus of Boyer; yet, in his opinion, in oblique fractures even this "cannot restore the limb to its normal length," in proof of which he cites a case in which "extension was kept up steadily until the forty-eighth day, when it had to be abandoned on account of the *deep ulcerations about the ankle and groin.*" He explains by asserting that the power used to counteract mus-

cular action "causes pressure or constriction in proportion to the resisting force of the muscles," which, he says, "rarely fails to cause acute pain, excoriations, blisters, or even sloughs." Hence the infinite variety in the form and composition of the perineal band; in the fashioning of the upper extremity of the inner splint, by which counter-extension is made against the perineum; in the method of treating by the flexed position, with or without weights and cords passing over pulleys; and, finally, in the application of dextrine or starch; all with the same intention of saving the perineum and groin from the effects of pressure and friction. It would require more space than can well be appropriated in this communication to describe the numerous plans proposed for the defence of the perineum. To defend this part has been a principal desideratum with surgeons, and has, more than any other consideration, led to the endless modification of apparatus in the treatment of this fracture. Ordinarily, it is found, at the first visit after any of the forms of retentive apparatus in use has been adjusted, that the patient or his friends have slackened the counter-extending means, or are anxiously waiting for the surgeon to do it. In most of the cases this has to be done, and the seats of pressure and friction bathed with spirits, and soft materials interposed, so as, if possible, to relieve the pain and prevent abrasion. The same round of efforts, to abate suffering and ward off injury, must be repeated from time to time; in the meanwhile there is no constantly acting force sufficiently powerful to overcome muscular contraction, and, finally, union of overlapping bones takes place. To restrain patients in their efforts to loosen the counter-extending means, various plans have been proposed. Amongst the most recent, Dr. John Neill proposes the union of the extending and counter-extending bands outside of the long splint, partly for this purpose; and Dr. J. F. Flagg, of Boston, suggests that a padlock be put on the buckle of the counter-extending band whenever the patient persists in undoing it.

After encountering difficulties of this character during a practice of eighteen years, in the treatment of fractures of the thigh, the very favourable impression made upon my mind by the use of adhesive plaster in keeping up *extension* without pain, led me to a determination to use it for *counter-extension* as soon as an opportunity offered. This presented itself very soon afterwards in a case of so complicated a character as to afford a very fair test of the value of the plan. *This first case in which adhesive plaster was used as a means of counter-extension,* may be found recorded in the January number of the *American Journal of the Medical Sciences* for 1851. Since then I have used it in every case of fracture, not only of the thigh but of the *leg,* for counter-extension, as well as extension, with the happiest results. In the January number of the same journal for 1858 a number of cases of fracture of both thigh and leg, selected from my general practice, will be found published; in all of which it is shown most conclusively that any amount of force necessary to overcome muscular con-

traction, may be used without causing pain or excoriation at the seats of its application. This may be explained in the following manner: The adhesive plaster counter-extending bands become firmly adherent to a large extent of integument, consequently there can be no friction upon its surface; and through this extensive union with the skin, *pressure is widely and evenly diffused.* In the use of any of the ordinary unattached counter-extending means, the extent of surface occupied at the seat of pressure does not exceed eight square inches; a fractional part only of which sustains its greatest intensity, viz: that which overlies the tuber ischii, the edge of its ascending ramus, and a narrow space of the body of the pubis. The extent of surface to which the adhesive plaster counter-extending bands are attached, on the other hand, amounts to about one hundred square inches, over all of which the tension and pressure are equally distributed. In the use of the former, all the tissues lying upon the points of bone mentioned endure constant pressure, amounting often to constriction; in the use of the latter, through the elasticity of the skin, and the extensive distribution of the tractive power, pressure is slight and painless. In the use of the former, friction is produced continually by the movements of the body or limb; in the use of the latter, friction is impossible. The former glides over the surface, and acts as a ligature; the latter being adherent, cannot act thus. The former does not fix the pelvis; the latter holds it firmly, and keeps all the parts steady from the chest to the foot. The former requires the daily attention of the surgeon, to relieve suffering and prevent abrasion; the latter requires no such attention, unless the bands lose their attachment, which ordinarily does not occur more than once during the whole period of treatment. In short, by the adhesive counter-extending bands pressure is completely neutralized, friction cannot occur so long as they remain adherent, perfect quietude of the fragments is maintained; the union, consequently, requires less time, and less attention from the surgeon, and the patient is entirely free from the annoyance and suffering inseparable from the ordinary methods, no matter how great the power used to overcome the muscular contractions, or how protracted the period required for union in complicated cases.

Adhesive plaster has been used for years as a means of keeping up *extension.* Dr. F. H. Hamilton, in his report to the American Medical Association, *vide Transactions* for 1857, says: "The adhesive plaster bands are beyond all comparison the best means of making permanent extension which are at present known to surgeons. Hitherto one of the most serious difficulties in the way of extension, and the objection which has been most effectively urged against its adoption, has been the excoriations, ulcerations, and even sloughing, which so often occurred from the use of the various extending bands about the ankle. This, together with the injuries occasionally inflicted by the *perineal band,* has been regarded as a sufficient reason for preferring the flexed position. But no one who

has employed the adhesive plaster extending bands will doubt that so far as injuries to the foot and ankle are concerned, this objection is entirely disposed of." Again, he says: "I regard this simple invention, therefore, as one of the most important improvements in the treatment of fractures of the thigh."

An experience of eleven years, by this method, in the treatment of fractures of the thigh and leg, warrants me in asserting most positively that adhesive plaster as a means of making and keeping up *counter-extension*, is no less valuable, than it is here regarded by Dr. Hamilton, as a means of making and keeping up *extension*. The same difficulties arising from pressure and friction, viz., "excoriation, ulceration, and even sloughing" of the perineum and groin, are encountered when any of the unattached means are used, and are as certainly prevented when adhesive plaster is applied instead. The cases already alluded to, published in the January numbers of the *American Journal of the Medical Sciences* for 1851 and 1858, are a part of this experience, and fully sustain all that is here assumed.

In these cases it is shown that the most seriously complicated, compound, and comminuted single and double fractures in adults, children, and infants were treated without pain at the seat of counter-extension; and that the cures were perfected in unusually short periods of time. In some of the cases, adhesive plaster bands were used instead of the common roller and many-tailed bandage, with great advantage. Although the anterior and posterior counter-extending bands are usually quite sufficient, yet any additional amount of adhesive plaster may be applied in order to diffuse the tractive force still more widely. The pelvis may be fixed by girding it with a broad horizontal band, from which any desirable amount of counter-extending power may be commanded, by strips extending from it anteriorly and posteriorly to the upper extremity of the splint. Thus the perineum, if any injury there should render it necessary, may be left free and unencumbered. Since the publication of these cases the plan has been adopted by several private practitioners, who have informed me that their success has been equally gratifying. Amongst these, Dr. Kerr, of York, Pa., recently treated a case of severely comminuted compound fracture of the thigh with the happiest results. It has also been used at the Episcopal Hospital of this city in several cases, by Dr. Kenderdine, one of the surgeons of that institution, who informed me that the results have been so favourable that hereafter the plan will be preferred by him to every other. Dr. Hunt, one of the surgeons of the same institution, informs me that he has a case now under treatment, in which adhesive plaster is being used for counter-extension.[1]

[1] *March 1st.* Dr. Hunt says: "This case has now been under treatment for six weeks. It has progressed favourably, in every respect. The patient has experienced no pain from pressure, abrasion or excoriation, at the seats of extension

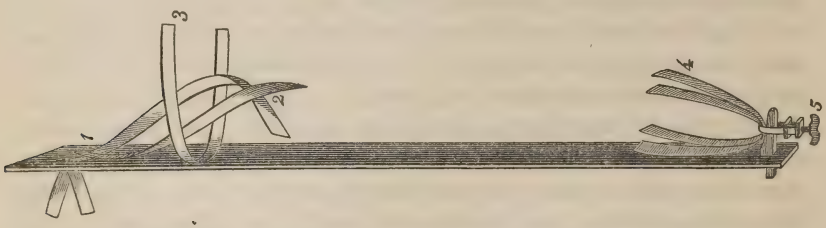
As additional confirmation of the value of the practice the following cases, also of unusual character, are submitted:—

1. I was sent for, January 21, 1858, to take charge of Mrs. J. Van Gunton, aged sixty-six years, residing at No. 1206 Alder Street above Girard Avenue, who, it was stated, had fallen from the flat roof of a one story back building, and fractured her left thigh bone. When I arrived at the residence of the patient, I was informed by her son, Mr. F. Van Gunton, that the accident had occurred *seven weeks previously*, and that an "eclectic doctor" had had charge of the case and treated her from the time of the receipt of the injury to the present time. As retentive means the "doctor" had used two long narrow splints, the outer one extending from the trochanter, and the inner from the perineum, to the foot. These were bound to the limb, after supposed reduction of the fracture, by a roller. No other effort was made to keep up extension and counter-extension except with this lateral pressure. On the day when I was sent for he had removed this retentive apparatus, and informed the patient and her friends that union had taken place. It soon became evident, however, not only that union had not resulted, but that *the thigh was fractured in two places.* For these mistakes in diagnosis and treatment he was discharged. On examination, I found an oblique fracture at the union of the upper with the middle third of the femur, and another in the lower third, immediately above the condyles. From the increased breadth of the bone at the condyles, and the existing inflammation in the knee-joint, I had no doubt of the existence of vertical fracture between the condyles; but this could not then be certainly detected. The whole limb was swollen and shortened. After making as much traction with the hands, assisted by her son, as the patient could then endure, the leg was still three and a half inches shorter than the sound one. I learned that the patient, previous to the accident, had enjoyed uninterrupted good health for years; in consequence, however, of the protracted confinement, and her sufferings from inflammation and fever, she had become greatly reduced. I applied the retentive apparatus described in the publication of my first case, using adhesive plaster for extension and counter-extension. In this case, however, which required an increased amount of power to overcome the permanent shortening as well as the active contractions of the muscles, I used double adhesive bands, which were fused together by passing them over a heated surface. I also added a horizontal strip which encircled more than half of the pelvis, immediately below the crista ilii, for the purpose of more securely binding the

and counter-extension, at any time. The adhesive strips used for counter-extension have been renewed but once since their first application. This became necessary, in consequence of the want of firmness of the plaster cloth; it would, therefore, be better if this consisted of linen, or some other unyielding material." The fusion of two layers of plaster, as used in the case of Mrs. Van Gunton and others, remedies this defect almost entirely.—D. G.

counter-extending bands to the surface, and increasing the extent of attachment of the counter-extending means. That the manner of applying the adhesive bands may be fully understood, I here furnish a drawing of the apparatus. This conveys a more accurate idea of the plan than mere description. The wadding, the roller for the leg, and the many-tailed bandage for the thigh, are omitted.

Fig. 3.



1. Anterior and posterior counter-extending adhesive bands, two and a half inches wide, crossing each other before they pass through the mortise holes. 2. The same, crossing at the upper part of thigh and perineum. 3. Horizontal pelvic band, which may be three inches wide. 4. Extending bands, receiving strap of tourniquet in the hollow of the foot. 5. Tourniquet.

Having adjusted the apparatus, extension and counter-extension were made by the *tourniquet*, and were increased from day to day until the fractured limb was brought very nearly to the length of the sound one. The tension necessary to overcome the shortening and muscular resistance was, from the peculiar nature of this case, unusually great, *yet no pain was complained of at the seats of extension or counter-extension.* One of the peculiar advantages of the use of adhesive plaster for these purposes is that the extent of its attachment may be increased, if necessary, until the whole pelvis is encased. My experience, however, has satisfied me that the amount of surface covered by the bands, as represented in this drawing, is sufficient to keep the muscular contractions under easy and full control until union takes place in the most unpromising cases.

The patient was placed upon a fracture-bed (I do not remember who first contrived it), which was constructed a few hours afterwards in the neighbourhood. I have found this bed a most valuable assistance in the treatment of all severe injuries, and after large operations, for the last twenty years of my practice, and therefore confidently recommend it to all who have similar cases to treat. It consists of a frame three and a half feet wide and six feet long, made of $1\frac{1}{4}$ or $1\frac{1}{2}$ inch plank, 4 inches wide, joined by mortise flatwise. Over this, sacking or strong canvas is tightly drawn, and secured by tacks. A hole is made in the centre, of a convenient size for the passage of the alvine evacuations. A sheet is thrown over the bed, with an opening to correspond; pillows are placed upon its upper end, and the bed is fully furnished. This is preferable to any of the complicated and expensive beds in use, because it possesses all the properties required in a

fracture-bed, and yet is so cheap and simple as to place it within the reach of every one, in any locality. It imparts the evenness and firmness of a mattress to the softest bed of down or feathers; the patient can have his evacuations, without the least disturbance of the fracture, by raising the frame and resting it upon stools or chairs; during this time the bed upon which it was placed may be changed and made up, and, if it is desired, the patient may be carried safely from room to room, and, in pleasant weather, out into the open air of a piazza or back yard, upon this fracture-bed.

When the apparatus was applied, and the patient placed upon her bed, she declared herself to be much more comfortable than she had been since the occurrence of the fracture. The tension of the extending and counter-extending bands did not occasion any suffering at the seats of their application, whilst the irritated tissues at the points of fracture, though still painful, were relieved in consequence of the more favourable position of the fractured ends of the bone, as regarded the soft parts. Her constitutional symptoms were those of irritative fever, caused and kept up by local suffering. Her tongue being coated, and her bowels not having been moved for several days, a pill, composed of muriate of morphia gr. $\frac{1}{4}$, and calomel grs. v, was ordered to be given at bedtime, and to be followed in the morning by a tablespoonful of castor oil. To the knee, which was inflamed and greatly swollen, fifty leeches were ordered to be applied; after which warm fomentations, to encourage the bleeding, were to be used.

January 22. The patient passed a comfortable night. The knee is less swollen and painful, in consequence of the leeching and fomentations, and the calomel and oil had operated twice freely. She relished some gruel for breakfast. The extension and counter-extension were increased by means of the tourniquet, without pain at the seats of their application, and but slightly at the knee and seats of fracture. Fever having abated very considerably, ordered: ℞.—Quiniæ sulph. ℈j; tinct. ferri muriat. f℥ij; syrup, simpl., f℥ij. S.—A teaspoonful every two hours during the day, and tinct. opii acet. gtt. xxx at bedtime. Locally, flaxseed-meal poultice to the knee.

From this time forward the case progressed favourably. After a few days the fever subsided entirely, and, under the use of tonics and an improved diet thereafter, her strength gradually improved. Sleep was provided for during the night by the exhibition of the black drop, and oil was given occasionally to remove costiveness. The leeching was repeated once, in consequence of an aggravation of the swelling, from cold contracted one night, when a great and sudden change of the weather had occurred. After the poultices were discontinued, tincture of iodine was applied around the joint, to reduce the remaining tumefaction. At the end of seven weeks the anterior counter-extending strips became loose, and pain and slight abrasion resulted in one night from their pressure and friction, as if loose bandages had been used. These were removed and new ones applied, and all local irritation immediately subsided. When eleven weeks had elapsed, the splints

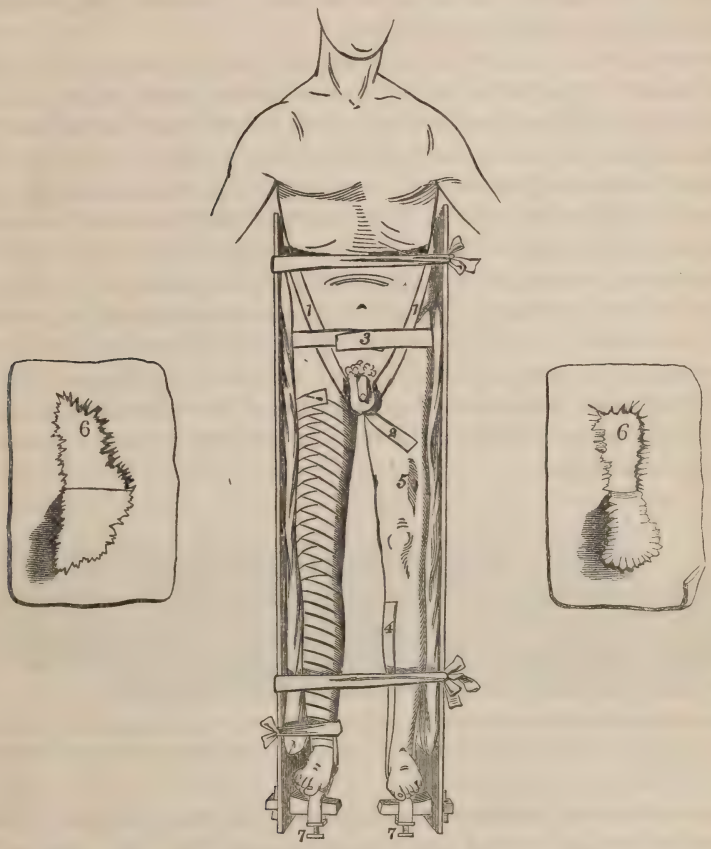
and bandages were all removed for the first time since their application, and the fractures seemed to be united. Enlargement of the knee, without pain, however, was still present. On the following day it was ascertained that the union, especially at the upper seat of fracture, was not sufficiently firm, there being outward deformity and shortening, produced by muscular contraction. The retentive apparatus was again applied, after bringing the femur as nearly as possible into its normal line, and allowed to remain four weeks longer. After this removal, being seventeen weeks from the application of this apparatus, and twenty-four weeks after the occurrence of the fracture, the union was considered sufficiently consolidated, and the apparatus was not again applied. By very careful measurement, at this time, the fractured limb was found to be scarcely one inch shorter than its fellow. In consequence of her protracted confinement, at such an advanced age, she was not able to leave her bed, however, until a week afterwards. Gradually she gained strength, and, by the aid of crutches, became able, at the end of the second week, to move about the room. The union, however, could not have been as perfectly consolidated as was supposed when the final removal of the apparatus took place, since, by a recent measurement, made January 14, the shortening has increased to $1\frac{1}{2}$ inch. She is, however, fully restored in every other respect, and is able to attend to her ordinary household duties. Notwithstanding the unusual amount of power which it became necessary to apply by the tourniquet, for so protracted a period, no complaint was made of pain at the seats of the application of this power, except when the anterior adhesive counter-extending bands became detached from the surface, and began to act as ordinary loose bands, this being promptly remedied by the application of new strips.

2. The next case is that of Thomas Stokely, aged $11\frac{1}{2}$ years, whom I attended, as consulting surgeon, at the request of Dr. Theophilus E. Beesley, the family physician. In this there was compound oblique fracture of both thighs, the bones piercing the pantaloons as well as the muscles and integument. Whilst I leave it to Dr. Beesley to present a full account of this case to the College, I furnish the accompanying drawing (Fig. 4, p. 297), which was very accurately taken from life by Kielman. The roller applied to the leg, and many-tailed bandages to the thigh, are shown as applied to the right limb only.

In the treatment of oblique fractures of the bones of the leg, requiring permanent extension and counter-extension, the adhesive plaster bands are quite as valuable as in fracture of the thigh. For simple oblique fracture, two splints, six inches wide, reaching from above the knee to about six inches below the foot, are sufficient (Hutchinson's modified). Each splint should have two holes at its upper and one mortise hole at its lower extremity. Those at the upper extremity are provided for the passage of the counter-extending adhesive bands, and the mortise below is for the reception of a cross-piece upon which the frame of the tourniquet rests. The tour-

niquet in this, as in fracture of the thigh, furnishes the most convenient and efficient extending and counter-extending power. Junk bags, or wadding, to fill up the inequalities of, and give support to, the leg, adhesive plaster

Fig. 4.



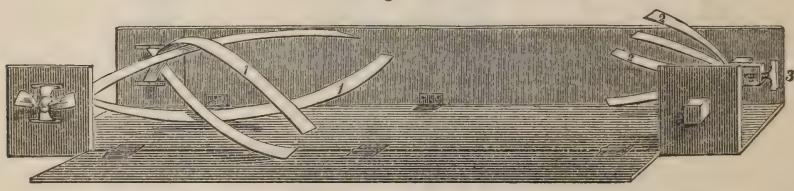
1, 1. Anterior adhesive counter-extending strips. 2. Distal extremity of posterior adhesive strip of left side. 3. Adhesive strip surrounding pelvis, binding the anterior and posterior strips to pelvis. 4. Inner extremity of the extending adhesive strip, forming stirrup under the foot to receive the strap of the tourniquet. 5. Cicatrix of left thigh. 6, 6. Holes made in the pantaloons by the protruding fragments of bone, full size. 7, 7. The common tourniquet, by which the power was applied.

bands, about two inches wide, and the roller, or the many-tailed bandage, complete the apparatus. For counter-extension four adhesive plaster bands are necessary, and for extension two are ordinarily sufficient. The former are applied spirally, so as to cross each other, the two anterior just below the tubercle of the tibia, and the two posterior at a point directly opposite. These, in their spiral course upwards, severally cross each other, externally and internally, opposite the joint; their proximate extremities are then passed through the holes in the splint, and securely tied outside. The

latter are applied to the foot and ankle so as to cross each other at the hollow of the foot, then over the tarsus anteriorly, and the upper part of the tendo-Achilles posteriorly. The strap of the tourniquet passes between the sole of the foot and the strips where they cross each other. After the extending and counter-extending adhesive bands are applied, they are bound to the surface by common bandages.

In cases of compound fracture a modification of the common fracture-box may be used very advantageously. In this the foot-board is omitted, and a cross-bar for the reception of the frame of the tourniquet is substituted. The sides of the box each consist of three separate segments. Of these the upper and lower are permanently screwed to the bottom-board, and the central one is attached by hinges. By this arrangement there is full access to the wound, which may be dressed from day to day without disturbing the extension and counter-extension maintained by the permanently attached upper and lower segments. This apparatus was used successfully in the case of Michael Gillis, who had compound comminuted fracture of both bones of the leg, in the winter of 1852–53, and is the sixth of the series of cases published in the *Amer. Journal of the Medical Sciences*, already alluded to. The following drawing represents this apparatus, omitting bandages and side-compresses.

Fig. 5.



1. The four counter-extending adhesive strips, as if encircling the knee and upper part of leg. 2. The two extending adhesive strips crossing at the bottom of the foot, ready to be applied to the foot. 3. Tourniquet.

Dr. Beesley then read the following note of the case of compound fracture of both thighs, referred to by Dr. Gilbert:—

In the afternoon of the 27th of 10th mo. (October), 1858, I was called, as the family physician, to Thomas, son of Wm. S. Stokely, No. 58 N. Eighth St., and met Dr. David Gilbert at the bedside of the sufferer. He was a lad of $11\frac{1}{2}$ years of age, who had a compound fracture of both thighs, of the right a little below, and of the left a little above the middle of the femur, occasioned by his falling from a height of about 20 feet directly upon his feet. Subsequent examination of his dress showed that the upper fragment of one thigh, and the lower of the other, had protruded sufficiently to penetrate through his pantaloons in front. My friend Dr. Griscom had first seen the patient, and attended to the reduction of the bones. I assisted Dr. Gilbert in the application of such temporary splints as we had, and of the proper dressings. As a counter-extending band to each thigh,

two strips of adhesive plaster, each an inch and a half wide and two feet long, were so placed as to cross each other at the portion of the thigh where it joins the perineum, extending, the one in front and the other behind, to the upper part of the splint, and were there passed through two holes and were firmly fastened together, an outside splint only being applied to each limb. A broad adhesive strip was applied around the pelvis and over the counter-extending bands, so as to give them additional support. For the extending bands two broad strips of plaster were applied, from a little below the knees, along the legs, sufficiently long to leave a loop below the hollow of each foot for the strap of a tourniquet to pass through. Extension and counter-extension being then made, and the fractures properly adjusted, a common roller-bandage was bound on the adhesive strips from the ankles to the knees, and the many-tailed bandage was applied over the thighs. Between the splints and the thighs cotton wadding, folded in muslin, was used as padding. A compress and cold water dressing were kept to the wounds.

No complaint of pain at the seats of extension and counter-extension was made by our patient. The following day the temporary splints were laid aside, and a narrow board splint for each limb was substituted, extending along the outside from below the arm-pit opposite the nipple to about six inches below the foot. Extension was made and kept up by means of common tourniquets, the frames of which rested on blocks projecting inwardly from the lower extremities of the splints.

The wounds were inspected at the end of the third day, and were found sealed up by coagulated lymph, a slight oozing of bloody serum alone appearing. Dry compresses were now applied, and retained by the bandage of strips, and a flat bottle of ice-water was laid between the thighs, opposite the injured parts, and continued for a fortnight or more, to the apparent comfort of the patient.

After the first day there had been a considerable amount of swelling, which seemed more the result of effusion and congestion than inflammation. The general excitement was at no time great. It was highest about the fourth day, and subsided to a very moderate degree about the close of the first week. Anodynes were given from the commencement, about every four hours, to allay the spasms of pain which occasionally darted through the limbs, and to obtain sleep; they were found useful, in moderate doses, throughout the case. The neutral mixture, with a little tincture of rad. aconite, was administered, whilst there was febrile excitement; also occasionally, when needful, a cooling laxative or an enema. On the complete subsidence of the febrile symptoms, tonics were given, principally sulphate of quinia, with the tincture of the chloride of iron. The patient was placed from the commencement on a fracture-bed, consisting of a simple frame, about 4 inches deep, 5 feet long, and $2\frac{1}{2}$ feet wide, with strong ticking stretched tightly over it and firmly nailed to it; the ticking was furnished with a hole in the centre for the evacuations, and under this hole was placed

a cushion or pillow. On this fracture-bed he could be lifted, without pain, to attend to his evacuations. The fracture-bed rested on a common mattress, and was supported, when desirable, by stools at the head and foot.

The first complaint he made of pain at the seat of the counter-extending bands was on the morning of the fourteenth day. On examination, it was found that, in order to relieve itching under the plaster, he had separated it for some distance from the skin on the previous evening, and that then this detached portion had acted as an ordinary loose counter-extending band in producing pressure and excoriation; to relieve this, his mother had stuffed cotton under the bands, but still the pain continued. We renewed the loosened portions of the bands, and little complaint was made during the remainder of the treatment until the fourth week, when it became necessary to apply fresh anterior and posterior counter-extending bands. The wound of the left thigh was fully cicatrized on the eighteenth day after the accident; that of the right not until the sixth week. After the first few days the discharge from each wound was very trifling in amount, proceeding only from the granulating surfaces.

We had reason to believe that firm union had taken place at the end of the fifth week; but, at the urgent request of the father of the patient, the splints were continued until the middle of the seventh week, or the forty-sixth day from the accident, when all retentive apparatus was removed. The thighs have their natural form and length. The patient was free, during the entire period of treatment, from the usual suffering experienced at the seats of extension and counter-extension; the only exception to this was the very slight uneasiness above mentioned, induced by the patient's interference with the bands at and near the perineum. The strips of adhesive plaster, by which extension was made, remained without removal from the day they were applied to the end of the treatment.

In writing an account of this interesting case, I have drawn freely from the notes of it kept by Dr. Gilbert, to whose skill, under Providence, I attribute its completely successful result, the more remarkable from the age, nervous constitution, and active character of the lad. Of all the cases of fracture of the thigh which have come under my notice in the course of a pretty extensive practice of more than forty years, there has been none where the apparatus made use of was so simple, so painless, and yet so thoroughly efficient in retaining the injured limbs in their natural position. The fracture-bed, by its cheapness, lightness, and convenience for moving the patient without pain and allowing the necessary evacuations of the bowels, seemed almost all that was to be desired in such a case. At first there was some difficulty in urinating, and the catheter was used a few times; after that, however, a large-mouthed flattish phial was placed so as to receive the urine, when the patient desired to void it. In conclusion I may add, that now, at the end of three months from the accident, the boy walks with facility and without limping, there only appearing some stiffness in his knees.

SUMMARY OF THE TRANSACTIONS

OF THE

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

FROM MARCH 2, 1859, TO FEBRUARY 1, 1860, INCLUSIVE.

March 2. *Effect of Respiration on the Size of the Heart.*—Dr. Da Costa read the following note in continuation of a previous paper:—

Several months ago, when conducting some observations respecting the influence of the respiration on the position of the heart, I was struck with the very decided change which occurs in the sounds and in the extent of percussion-dulness during a held expiration. The dulness increases markedly, especially in an upward and transverse direction; the sounds, particularly the first, are manifestly altered. The question presented itself to my mind, how far these phenomena were due to a mere change of position of the heart and the adjacent borders of the lung, or how far they might be owing to a distension of the heart during the prolonged expiration?

To arrive, if possible, at some conclusion on this subject, I instituted a series of experiments, with the kind aid of several professional friends, and especially am I indebted to Drs. Brinton, Kane, and Hammond, for their assistance.

Experiment.—A rabbit was etherized, and the operation of tracheotomy performed. The heart was previously listened to, and its action was observed to be very rapid; the chest was then laid open and the organ exposed. On cutting away the pericardium, whilst respiration was kept up through a tube inserted into the trachea, it was immediately noticed that during a forced inspiration the left auricle and ventricle, and, indeed, the whole heart, as far as it was exposed, appeared small; whilst, when the stop-cock of the tube was turned off during an expiration, both the ventricle and auricle were distended to almost twice the size they presented during a full inspiration. The longer this state was kept up the greater became the tumefaction on both sides, until it finally seemed as if the heart would burst. But a full inspiration relieved it, and it returned to its former shape. By careful dissection, a view of both sides of the heart was obtained, and the same appearances were recognized on the right side; that is, like on the left side, when the lungs were permitted to sink back and the breathing stopped, the ventricle and the auricle swelled enormously, but immediately diminished when the pulmonary tissue was again filled with air. The effects of a continued and held inspiration were not particularly studied, but

it was specially noted that the same phenomena described as occurring in expiration were obtained by pressing on the lung, and emptying it mechanically of the air it contained.

Exp.—The same experiment was repeated on another rabbit, and with the same results. The swelling of the auricles was not as marked; that of the ventricles was. It was especially noticed that during the fixed expiration the ventricles were distended both during their contraction and relaxation, and that the action of the heart became very laboured. The point of the heart appeared rounded.

Exp.—On a frog, I was enabled to ascertain the precise difference in the size of the heart during a fixed expiration and inspiration. The two auricles measured in their transverse diameter 17½ mm. during a full expiration; 16 when the lungs were moderately filled with air; 15½ in a full inspiration, and only 14 mm. during the most expanded state of the lung. The ventricle varied by 2 mm. during the extremes of the acts of respiration.

Now these experiments certainly prove that during a protracted state of expiration, in which the blood is but imperfectly, or not at all, aerated, *both* sides of the heart become clogged with blood.

Exp.—To enable me to study the succession in which this distension occurs, Prof. John C. Dalton, of New York, separated the sternum of a dog which had been poisoned with woorara. Artificial respiration being kept up, we noted the following: "The rapidity of the heart's pulsation, immediately after the stoppage of the breathing, and whilst the lungs are moderately collapsed, is the same as before—28 beats in ten seconds. Both ventricles become somewhat swollen soon after the respiration is discontinued, but we cannot decide which, if either, begins to swell first. On the right side, the auricle and the ventricle both swell, and, we think, without being too positive, that the ventricle commences to swell before the auricle; *we are sure of it as regards the left side.* The pulmonary artery enlarges considerably before the pulmonary veins or the left auricle. At a later period the left auricle and the pulmonary veins increased in size almost simultaneously, but the auricle first. Blue blood appears in the pulmonary veins and on the left side of the heart before there is any excessive swelling of any part of the organ. As the pulmonary artery becomes engorged, a well-defined clacking noise is distinctly audible."

I repeated this experiment some time afterwards on another dog, so as to satisfy myself as to the relative time of swelling of the ventricles, auricles, and pulmonary artery, and observed exactly the same.

It demonstrates that when air is prevented from entering the lungs, and they recede, both sides of the heart distend—the ventricles before the auricles, the pulmonary artery before the pulmonary veins. It is not, nor indeed are any of the observations, conclusive as to what takes place during a fixed inspiration; but it is as to what happens when the breathing is

arrested whilst the lungs are only moderately distended with air. The question now arises, and a difficult question it is to solve, in how far is it probable that the same phenomena occur in man during a fixed expiration? Can we, taking the experiments just detailed as a starting point, assert that they occur at all? Now I am perfectly aware that no such states, precisely as those described, can in the human subject supervene on the prolonged expiration. I am perfectly aware that in experiments on the respiration of animals we have to take into account the element of asphyxia; that on the one hand the altered pressure on the thoracic viscera and the more perfect collapse of the lung, which the introduction of air into the cavity of the chest occasions, is very different from the ordinary condition of things; and that the movements of a healthy human chest are not the same as the thoracic movements in an animal whose breast-bone has been removed. But the visible enlargement of the ventricles, when the respiration is stopped, occurs so rapidly that I cannot but think that the same takes place during a fixed expiration in man, although perhaps to a less degree. There are other facts which render this extremely likely, namely, the swelling of the jugular veins, during a full expiration, and their diminution in inspiration; the changed character in expiration of the pulse, which is apt to quicken, and still more constantly becomes much feebler, not only at the wrist but in the temporal arteries. We can add to these that at the same time the impulse of the heart becomes more distinct and extended, and the sounds alter in character, over the left as well as over the right ventricle.

I should speak more positively on the subject were I able to say more positively what is the exact mechanical effect of the acts of respiration on the pulmonary circulation. The opinions of careful physiologists vary widely on this point; yet the weight of argument seems to lie on the side of those who maintain that in expiration the circulation through the lung is accomplished with some difficulty. If so, the explanation of the enlargement of the heart would be this: The circulation is somewhat obstructed in the lung; the right heart becomes engorged; the blood flows to the left side; but it does not leave it very freely, because it is not very perfectly aerated if the expiration is continued a long time.

This, too, will only be admitted if the analogy with what occurs in experiments on asphyxia in animals be admitted; and if it be conceded that the hindrance to the flow of blood in this state occurs to a great extent by the capillaries all over the body refusing to receive the impure blood the heart injects into them—a fact which some of the experiments of Dr. John Reid render more than highly probable. Or, not to go as far as this, I will say that if there is any reason why the general capillary circulation should be retarded during a fixed expiration, it will explain why the blood accumulates in the heart and venous system, and does not pass as freely into the smaller arteries.

There are other points regarding the pressure on the walls of the arteries and veins during the acts of respiration that have been elucidated by the labors of Magendie, Poiseuille, Ludwig, and Donders, which ought to be taken into account. But I shall not now enter further into the subject.

The difficulty of drawing conclusions on a matter as complicated as this is very great. Nor do I intend them to be final. I have merely wished this evening to call the attention of the College to them, in hopes of being able at some future time to furnish more extended data.

I cannot, however, leave this subject without alluding to the erroneous view, still so prevalent, that in asphyxia the blood collects in the venous system and on the right side of the heart, and that the non-aerated fluid does not reach the left side of the organ. If the experiments above detailed prove nothing more, they certainly prove how faulty is this still generally received doctrine; they certainly show that black blood may distend the left side of the heart. Whether the same phenomena occur if asphyxia is brought on whilst the lungs are fully inflated, I cannot say, since I have not as yet studied that question. But I can say that, if they do occur, they are not produced so quickly.

Arsenic in Obstinate Chronic Bronchitis.—Dr. Wood observed that his attention had long since been attracted to the probable existence, in certain cases of obstinate chronic inflammation, no matter in what part of the body it might be situated, of the same state of system which gives extreme obstinacy to some cutaneous eruptions, such as psoriasis and lepra. This view is of practical importance; as arsenic, having proved a most effectual remedy in the cutaneous affections alluded to, might be equally beneficial in obstinate chronic inflammation elsewhere, if possessed of the same systemic character. The idea is not a new one. Professor Simpson, of Edinburgh, having been led to the supposition that a certain obstinate affection of the bowels, not uncommon in that city, was of a nature similar to cutaneous eruptions, employed arsenic in it with very beneficial effect. The same remedy has been long employed in obstinate periostitis, and with great asserted benefit in chronic nodosities of the joints of a rheumatic character. I have frequently thought of using it in chronic bronchitis, which had resisted ordinary treatment, but never carried the idea into effect until, in a case of nine or ten years' duration, which came under my notice some time since, connected with psoriasis of the face, I had a fair opportunity of trying the remedy. Under the use of Fowler's solution, in the dose of from three to five drops, three times a day, continued for six or eight weeks, the cutaneous eruption and chronic bronchitis were both so much relieved that the remedy was discontinued. Indeed, both affections had almost, if not quite, disappeared; and the patient had not been equally free from his bronchial affection at any time for years before. In consequence, however, of apprehension of injury to the stomach, not well founded

I believe, he prematurely omitted the medicine; and three or four months afterwards both affections began to reappear. I am again using the solution in the case, and thus far, with a similar result.

Stomatorrhœa Vicarious to the Menses.—Dr. Wood also made the following statement: "During my last term of service in the Pennsylvania Hospital, a case of stomatorrhœa occurred, which appears to me worthy of notice. The patient was a woman, of about twenty-five years of age, in other respects apparently in good health. She had for three months been affected with a very profuse and disagreeable discharge from the mouth, which she herself supposed to proceed from the stomach. I soon, however, convinced myself that the liquid discharged was a mixture of saliva and a mucoid secretion from the lining membrane of the mouth and fauces. It was nearly colourless, somewhat viscid, and of an unpleasant odour and taste, and appeared to be constantly flowing. As there was evidence of some inflammation of the mucous membrane, I considered the case one of simple chronic stomatitis, and treated it accordingly, both by general and local remedies for a considerable time, but without the slightest advantage. My attention having at length been directed to the menstrual function, I found that it had been arrested about the same time with the occurrence of the discharge from the mouth. Thinking that the two affections might be connected, I put the patient on the use of aloes and the pill of carbonate of iron, with the hot hip-bath daily, which apparently had the effect of restoring menstruation, after which, the affection of the mouth ceased immediately. This case may prove useful, if in no other way, by inducing an early inquiry into the state of the menstrual function under similar circumstances."

May 4. *Common Salt in Epistaxis.*—Dr. Hays stated that he had been induced, by the report made to the College in November last of a case of epistaxis promptly arrested by the administration "of common salt taken into the mouth in doses of a teaspoonful" (see *Trans. of Coll.*, Nov. 5, in *Am. Journ. Med.*, April, 1858, p. 390), to try the remedy in an obstinate epistaxis to which he had been recently called.

The subject of this case was a lady 80 years of age, who was seized with profuse epistaxis about midnight, and when seen by Dr. Hays two hours afterwards was still bleeding copiously; at least eight ounces of blood had been lost. Cold applications to the nose, forehead and back of the neck, which had been already used, were repeated, and these failing, the salt was administered as recommended by Dr. Morris, but without the least benefit. The hemorrhage was finally arrested, but not until about fourteen ounces of blood had been lost, by the application to the inner surface of the nostrils by means of a camel's hair brush, of the tinctura ferri chloridi. At first this was applied diluted with about one-third of water, but afterwards it was used still stronger.

It is proper to state that the difficulty in arresting this hemorrhage arose in great part from the impossibility of preventing the patient from blowing her nose and thus displacing the clot or from drawing out the plug with her fingers. For the patient, though willing to do what was desired, from her weakness of memory would repeatedly do that against which she was especially cautioned, and despite the watchfulness of her attendants frequently renewed the hemorrhage by displacing the coagulum.

Dr. Levick said a case of epistaxis had come under his notice, in which the use of common salt had entirely failed to arrest the hemorrhage. The patient was a man of about forty years of age, a free liver, who had for several years been liable to such an attack in the month of February. No attempt was made to suddenly check it; but when it became exhausting, common salt was resorted to, but proved entirely unavailing. The bleeding was at last arrested by plugging the nostrils with conical pledgets of lint, rolled in powdered kino.

Dr. Ruschenberger also had tried the salt, as recommended by Dr. Morris, in a case of obstinate epistaxis, without effect. The patient was an old gentleman; the bleeding continued until the plug of lint was resorted to, as in the case referred to by Dr. Levick.

Dr. F. Bache remarked, in reference to remedies proposed for hemorrhages, that it was often difficult to distinguish the event from the result in these cases, on account of their tendency to a spontaneous termination; and that, hence, the accidental coincidence of a cessation of the hemorrhage with the administration of a remedy, might lead to a very erroneous estimate of the value of the latter.

Dr. Hewson referred to a case of epistaxis occurring in the course of an attack of purpura, in which the use of Monsel's persulphate of iron, internally, in doses of two grains dissolved in a drachm of water, every four hours, promptly checked the hemorrhage, and gradually cured the general disease.

Ligature of Right Subclavian Artery for Axillary Aneurism.—Dr. H. E. Drayton read the following note of a case in which this operation resulted fatally, from pyæmia, on the 22d day:—

I. W., aged 37, tailor, born in Germany, general condition feeble, was admitted into the Episcopal Hospital of Philadelphia, March 25th, 1859, for injuries of right shoulder and side, caused by a recent fall. As the diagnosis was uncertain, the arm was simply placed in a sling, and bathed with volatile liniment. In this condition I found him, on taking charge of the wards as attending surgeon, on the 1st of April. I examined him repeatedly, but could make nothing out of the case, except that there was constantly greater pain than the apparent injuries accounted for, although there was no marked swelling; on the 7th of April, however, I discovered

a distinct aneurismal sound at the anterior part of the axilla, and under the clavicle.

The symptoms continuing, a tumour rapidly developing, and the arm vibrating responsively to the aneurismal thrill, a consultation with my colleagues, Drs. Hunt, Thomas, and Kenderdine, was held April 13th. They confirmed the diagnosis, and advised immediate operation, but the patient would not consent.

The symptoms increased in severity until the 16th of April, when the patient agreed to an operation, and the next morning was appointed for the purpose.

On the morning of the 17th an evident change had taken place; the tumour was reduced in size, with feebler throbbing, and diminished sounds; as also there was no pulse below the tumour, and the man appeared to be much easier, we were led to hope that such alteration had taken place in the condition of the parts as might possibly result in a spontaneous cure. The operation was consequently again delayed.

This improvement continued until the 21st, when the tumour increased nearly one-third in twenty-four hours, now presenting an enormous swelling in the axilla, with enlarged blue veins running over it. The arm was œdematous and much reduced in temperature. The radial pulse had returned, as well as a feeble though distinct pulsation in the tumour, with intense pain.

On the 22d, assisted by my colleagues, and the resident physicians, Drs. Grier and Ingersoll, I performed the ordinary operation of tying the artery above the clavicle. This was tedious, as from the great swelling there was such displacement as to render finding the vessel difficult. The artery must have been tied at least three inches below the surface. The ligature was passed by Gibson's aneurismal needle; and, upon being tightened, immediately arrested the flow of blood to the tumour, causing at once an entire cessation of both sound and pulsation. No vessel having been wounded, there was very little loss of blood.

From April 22d to May 1st there was some improvement, the tumour and œdema having diminished, and the temperature having risen in the arm. On the 26th there was slight pulsation at the wrist through the collateral circulation, and the wound was gradually uniting. May the 1st, fever set in and, during the night, the man became delirious, jumped out of bed, and tore open the wound, but fortunately without disturbing the ligature; this came away on the 9th, without any secondary hemorrhage. After this date he did not improve, but gradually became more feeble, suffering pains in the joints, with hectic flush and profuse sweats, delirium, coma, until he was released by death, which took place on the 14th.

Autopsy, 36 hours after death.—Rapid decomposition. Brain, lungs, liver, and heart healthy; large quantity of fluid in pericardium. In the sac of the aneurism there was more than a pint of thin blood streaked with

pus. The sac had opened into the shoulder-joint. The parts were so much disorganized that it was impossible to inject them. The ligated subclavian was found impervious, and adherent to the surrounding tissues. Its humeral end was shrunken to the size of a knitting needle. The axillary and brachial arteries were so soft and flat as to be mistaken at first for veins; these, on the contrary, being so filled in places with coagulated blood as to appear like arteries. In various parts of the body the veins were found filled with pus. The origin of the aneurism was found to be a small opening in the axillary artery, which vessel was no doubt prone to rupture, on account of a diseased state, resulting from the long continued use of a crutch, rendered necessary by a twice-broken, badly united femur.

During more than ten days immediately following the occurrence of the fall there was no tumour; but after the first symptoms had appeared, there was such rapid development and such acute pain, as to give rise to a very reasonable suspicion of malignant growth. The tumour could not be emptied by pressure. The cause of death was, undoubtedly, phlebitis.

Chronic Inflammation and Softening of the Brain.—Dr. Levick exhibited the brain of a woman who had died, fourteen hours before, in the Pennsylvania Hospital, and gave the following history of the case: The patient was an unmarried woman, æt. 38 years, who had been employed as an upper servant, and whose duties had not been arduous. Her health had been good until six months previously, when it was noticed that there was some mental confusion; that, in arranging the furniture of a room, it was placed in an improper position, bureaus out in the middle of the room, etc. Somewhat later than this, she began to complain of pain in the right side of her head, became of irritable temper, and restless. The pain, which would disappear entirely for a time, closely resembled that of neuralgia, and was treated with valerianate of ammonia without any permanent benefit. About this time she complained that she was unable to hold her needle long enough to sew. Six weeks ago, the pain became intense, and she was obliged to remain in her bed; delirium and excessive restlessness now set in, continuing for a time, and then disappearing. Two weeks later, she was brought to the hospital. She had at this time a cool skin, a frequent pulse, pain in the right side of the head, referred to the mastoid region and its vicinity, mouth distorted toward the right side, firm rigidity of the left arm, but no paralysis of the lower extremities, no want of control over the sphincters, and no sick stomach. The treatment consisted of a purge of compound powder of jalap, and the exhibition of small doses of calomel. She was unintentionally salivated, which was followed by a temporary alleviation of her symptoms. These soon returned with increased intensity; the tongue became dry and incrusted with sordes; these again disappeared, again to return, and she died this morning, her symptoms being rather those of exhaustion than of cerebral effusion. For a few days before her death

she had lost the control over her bladder and rectum. During the last ten days of her life it was found necessary to support her by the exhibition of wine and bark.

The brain alone was examined. It is of the usual size, appears to be healthy on its exterior, but the posterior portion of the right lobe, near its centre, has undergone very great disorganization. It is of a pale yellowish color, is infiltrated with serum, is completely softened, eroded, and resembles very much an abscess of the brain, although the altered and softened cerebral substance has not undergone the complete conversion into pus. It is an illustration of "red softening," the result of slow and long-continued inflammation, differing even in its physical aspect from the pale creamy softening of imperfect cerebral nutrition.

This case exhibited during life, to a very great degree, that remarkable fact connected with disease of the brain substance, which has not escaped the notice of pathologists, the partial or complete subsidence of all the symptoms of disease, their absence for a time, and their recurrence with a regularity almost identical with that of periodical fevers. So marked is this periodical exacerbation in some cases of disease of the brain, that the physician is tempted to resort to the usual anti-periodic remedy; and what is interesting is the fact that in some of these cases quinia seems to exert for a time a controlling influence. In this case the patient was at times so entirely freed from all her alarming symptoms that the suspicion of hysteria could not fail to suggest itself, soon to be dissipated by a violent manifestation of the most aggravated phenomena, reminding one of the gradual filling and sudden discharge of an electrical battery.

July 7. *Emphysema, with deep-seated Tubercle of the Lung.*—Dr. Levick remarked that a case of extensive disease of the lungs had recently been under his care in the Pennsylvania Hospital, in which the co-existence of two pathological conditions so antagonized each other as to permit the production of physical signs identical, or nearly so, with those of the healthy chest.

An old man, who had been sick for eight months, entered the hospital with hoarseness, cough, hectic, diarrhœa, and great emaciation, presenting, in fact, all the rational symptoms of tuberculous disease. On percussing the chest, it was found very resonant throughout, but not much more so than could be accounted for by its extreme emaciation. Auscultation revealed but little deviation from the natural respiratory sounds. There was some rudeness of the vesicular murmur below the right clavicle, and an occasional subcrepitant rale at the lower part of the lung; but, elsewhere, the respiratory murmur did not differ from that of health.

The man was found dead in his bed by the watchman on his nightly visit. Upon removal after death, the lungs did not collapse, and the entire superficial portion was found to be studded with large emphysematous vesi-

cles. Beneath this, and occupying nearly the whole of the deep-seated structure of the lungs, were large masses of tubercle surrounded by consolidated lung, the tubercle not having undergone softening. Even after death, percussion gave a clear sound, and the lungs floated in water.

Here, then, were two physical conditions opposed to each other, and, to some extent, equalizing each other. The dulness on percussion and increase of bronchial respiration, which should have been produced by such an amount of tuberculous deposit, were antagonized by the dilatation of the air-vesicles and the feeble respiration of the emphysema of the whole superficial portion of the lungs. Partial emphysema in phthisis is of frequent occurrence, perhaps almost a necessary attendant of the disease; but emphysema to such an extent, and producing such changes in the physical signs I had never before witnessed.

In such a case, very strong percussion might perhaps have developed the condition beneath, but ordinary percussion failed to do so.

Further examination showed the heart to have undergone fatty degeneration, and tubercles to exist in the bowels and the larynx.

Congenital Fissure of Upper Half of Sternum.—Dr. A. M. Slocum stated that he had seen, within a few days, a congenital fissure of the upper half of the sternum, in the person of Margaret D., æt. 25 years, a native of Ireland but a resident for four years in the United States. He reported the case from its similarity in some points to the noted one of Mr. Groux, though not possessing the same attraction, inasmuch as it does not admit of the interesting physiological experiments of which his is susceptible.

In form, the fissure is irregularly oval, complete above and extending down to a point opposite the ends of the third ribs, and being bordered on each side by a bony ridge with which the ribs articulate, and which is continuous with the body of the sternum. It is filled up with a strong ligament, probably elastic, covered by the common integument.

From the top of the clavicles to the bottom of the fissure is about three inches; during ordinary respiration the fissure is an inch and a half wide, but by a forcible effort it can be increased to two inches, and also diminished to only one-half an inch.

By making an attempt at inspiration, at the same time closing the nostrils and mouth to prevent the admission of air, a deep depression is formed in the fissure, and the bony ridges are brought very near together. By reversing these efforts, viz., by making a forcible attempt at expiration, after inflating the lungs, while the mouth and nostrils are closed, a large oval tumour, the full size of the fissure, is produced, which yields a clear sound on percussion.

During rest, there is no marked pulsation felt in the fissure, but any mental or physical exertion on the part of the patient causes a palpitation of the heart, the impulse of which is then readily seen and felt at the fissure. This case has not received as critical an investigation as its rarity demands.

1859. *Nov.* 2. *Imperforate Rectum.*—Dr. Ellerslie Wallace narrated the following case, in which a child with imperforate rectum was permanently relieved by operation on the closed end of the rectal pouch :—

Twelve weeks ago, I attended a lady in her first confinement; her child was of average size, and appeared to be properly formed in all respects. The infant nursed at the breast for some thirty-six hours, but then refused to take its natural nutriment, and was restless, and evidently in pain. The urine had passed occasionally, and in fair quantity, but there had been no alvine evacuation. I ordered an enema, which returned as soon as given, and produced no movement of the bowels. A cathartic, administered some hours after, was instantly rejected by vomiting. Sixty-four hours after the child's birth, I was notified that the bowels had not yet been opened, and that it seemed to suffer great pain. I saw it without loss of time, and found the child fretting constantly, and making repeated tenesmic efforts; the abdomen was largely distended, the breathing was short, and the expansion of the lung incomplete, from the great amount of flatus in the hollow viscera, below the diaphragm. The vomiting was frequent, with ejection of meconium. The hands and feet were cold, the face pinched and collapsed, and the pulse was a mere thread.

I explored the rectum with the finger, and found a cul-de-sac, of an inch in depth, passing upward from a perfectly well-formed anus; above the terminus of the pouch, I could feel only an elastic mass, of which the character was uncertain, as I was, of necessity, in doubt as to whether the mass was a distended rectum only, or the general bulk of the intestines compressed into the pelvis.

I explained the condition of the child to the family, and requested a consultation with Dr. Keating, who met me soon, and we advised the immediate performance of an operation for the infant's relief.

We mentioned, also, the possibility of the non-development of the rectum above the cul-de-sac, and the certainty of the operation proving unsuccessful if the gut had not been formed, and likewise the possibility of the operation yielding but temporary relief, even if the intestine should be reached by a cutting process.

Dr. Keating held the child for me : I then passed a delicate sharp-pointed bistoury into the anal aperture, and using the little finger of my left hand as a guide, I plunged the bistoury through the terminal wall of the cul-de-sac, making a puncture towards where the rectum should be. Upon withdrawing both finger and knife, a drop of meconium appeared. Being thus encouraged, I repeated the puncture, enlarging the aperture backward, toward the sacrum. I then removed the knife a second time, and had abundant evidence of having divided the intestine more perfectly than before. Again I passed the finger into the pouch, and guiding my bistoury upon it, made an incision of semicircular form, endeavouring to follow the posterior half-round of the intestine, so as to avoid the possibility of wound-

ing the peritoneum. The withdrawal of the finger and bistoury was now followed by a free discharge of meconium, of well formed feces, and of flatus. There was no bleeding worthy of notice. The distension of the abdomen was at once diminished, the child ceased to cry and whine, the extremities soon became warm again, and the pulse increased in force. Twelve hours after the operation, I again saw the patient; there had been no additional dejection; the abdomen was again much swollen, and the child was now refusing its nourishment, though it had nursed frequently and freely since I saw it last. I passed my finger into the bowel, and found the opening obstructed by what proved to be a dense blood clot; upon breaking it away with the finger another free discharge took place, and the infant experienced immediate relief.

During the week succeeding, I once advised an enema of warm water, and administered a single dose of oil, being unwilling to allow more than twelve hours to elapse without an alvine evacuation. This has constituted the entire treatment.

The child has never had colic, and has had no difficulty whatever with the opening of the bowels, which has taken place from two to four or five times per day, the matters passed being generally semi-fluid, but occasionally of ordinary solid consistence. It has always nursed well, and thrived well to the present time.

I have informed the parents, that when the feces shall permanently assume the solid character, I may deem it prudent to enlarge the communication between the proper rectum above, and the terminal pouch, which opens at the anus.

Should anything further present itself, in the above case, I shall report it to the college.

1860, *Feb.* 1. *Report on Meteorology and Epidemics.*—Dr. Wilson Jewell read the following report on meteorology and epidemics for the year 1859:—

The accompanying meteorological observations are entirely reliable, and are from the record as taken by Prof. James A. Kirkpatrick, of the Philadelphia High School, for the Smithsonian Institution. I am indebted to his uniform politeness for this abstract.

The mean temperature of the year (1859) was three-quarters of a degree below that of 1858, and almost two-tenths of a degree above the average for the last eight years.

The maximum temperature for the year, 97°, was attained on the 13th of July, and the 4th of August. The minimum temperature was two degrees below zero, on the 10th of January.

The warmest day of the year was the 13th of July, when the mean temperature was 86½ degrees.

The coldest day was the 10th of January, the mean for that day being but two degrees.

The winter and spring were nearly 3° above the average temperature for the last eight years, while the summer and autumn were nearly 2° below the average.

Of the months, the greatest variation from the average was experienced in March, which was more than 7° warmer than usual; indeed, the mean temperature of that month was 5° higher than any March in the last eight years. This change in the temperature of March may have been occasioned in part by the more southerly direction of the wind, the prevailing direction being 9° further south of west than it usually is, north of that point.

The large amount of rain—4 inches more than the average—may also have had a modifying effect upon the temperature.

The highest point of pressure shown by the barometer, was 30.478 inches, on the 24th of January; and the lowest was 28.890, on the 23d of April.

The amount of rain that fell during the year was $54\frac{3}{4}$ inches, which is ten inches more than the average for the last eight years. It was more than 13 inches greater than the quantity which fell in 1858. The greatest difference was in the winter and autumn, each of which shows 5 inches of rain more than the average, while the spring and summer show an increase of but little over one inch.

General Abstract of Meteorological Observations, made at Philadelphia, Pa., during the year 1859.

By JAMES A. KIRKPATRICK, A. M., Prof. of Civil Engineering in the Philadelphia High School.

(Barometer fifty feet above high water.)

1859.	THERMOMETER.									BAROMETER REDUCED TO 32° F.							
							RANGE.		Mean of daily oscillations.							RANGE.	
MONTHS.	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Monthly.	Mean daily.		7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Monthly.	Mean daily.
	°	°	°	°	°	°	°	°	°	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
January . . .	30.02	38.63	33.35	34.00	55	—2	57	8.0	13.0	30 016	29.975	30.017	30.003	30.475	29.387	1.088	.206
February . . .	32.70	40.64	35.99	36.43	63	18	45	6.3	13.2	29.900	29.864	29.891	29.885	30.229	29.316	0.913	.230
March	41.77	55.31	47.27	48.12	70	20	50	6.0	16.9	29.777	29.735	29.762	29.758	30.360	29.215	1.145	.250
April	45.70	56.13	49.01	50.28	78	31	47	6.3	15.5	29.723	29.678	29.703	29.701	30.083	28.890	1.193	.160
May	59.66	72.24	62.06	64.65	87	44	43	5.7	19.7	29.894	29.853	29.876	29.874	30.176	29.512	.664	.111
June	67.05	76.76	68.74	70.85	96	42	54	6.1	18.9	29.881	29.842	29.859	29.861	30.152	29.520	.632	.116
July	72.00	82.68	73.31	76.00	97	54	43	4.6	20.2	29.870	29.833	29.853	29.852	30.202	29.554	.948	.099
August	69.03	82.16	72.39	74.53	97	51½	45½	3.1	20.5	29.847	29.801	29.832	29.827	29.998	29.671	.327	.070
September . . .	61.02	72.88	64.65	66.18	82	45½	36⅛	4.1	18.1	29.875	29.835	29.863	29.858	30.179	29.338	.841	.119
October	46.98	59.11	50.87	52.32	81⅛	30	51¼	5.9	18.1	29.864	29.823	29.850	29.845	30.193	29.470	.723	.140
November . . .	42.63	53.35	46.48	47.49	67	27	40	7.3	18.6	29.990	29.940	29.965	29.965	30.338	29.436	.902	.193
December . . .	30.66	36.48	31.87	33.00	71	9	62	8.4	14.2	29.941	29.906	29.930	29.926	30.293	29.393	.900	.199
Annual means .	49.93	60.53	53.00	54.49	97	—2	99	6.0	17.2	29.881	29.840	29.867	29.863	30.475	28.890	1.585	.158
Winter	34.50	40.08	35.60	36.03	63	—2	65	6.9	12.7	29.973	29.931	29.958	29.954	30.475	29.206	1.269	.214
Spring	49.04	61.23	52.78	54 35	87	20	67	6.0	17.4	29.798	29.755	29.780	29.778	30.360	28.890	1.470	.174
Summer	69.36	80.53	71.48	73.79	97	42	55	4.6	19.9	29.866	29.825	29.848	29.847	30.202	29.520	.682	.095
Autumn	50.21	61.78	54.00	55.33	82	27	55	5.8	18.3	29.910	29.866	29.893	29.889	30.338	29.338	1.000	.151
For eight years .	49.73	59.93	53.27	54.31	100½	—5½	106	5.6	14.7	29.894	29.857	29.879	29.877	30.704	28.884	1.820	.156

Meteorological Observations—Continued.

1859.	Relative Humidity.					Force of Vapour.						Winds.	Clouds. Tenths of sky covered.				Dew-point.					
Months.	7 A.M.	2 P.M.	9 P.M.	Max.	Min.	7 A.M.	2 P.M.	9 P.M.	Max.	Min.	Rain and melted snow.	Monthly resultant; No. of times in 1000.	7 A.M.	2 P.M	9 P.M.	Mean.	7 A.M.	2 P.M.	9 P.M.	Mean.	Max.	Min.
	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Inch.	Inch.	Inch.	Inch.	Inch.	Inches.						°	°	°	°	°	°
January . . .	82	64	77	96	35	.153	.165	.158	.390	.028	5.230	N. 80° 41′ W., 375	6.4	6.2	4.4	5.7	25.06	27.05	27.02	26.38	52.1	—9.4
February . . .	79	65	74	95	31	.152	.166	.158	.404	.070	3.569	N. 42° 53′ W., 241	6.4	6.6	5.3	6.1	26.87	28.52	28.02	27.80	53.1	10.6
March	74	50	66	95	23	.207	.227	.222	.549	.085	6.503	S. 67° 23′ W., 234	5.9	5.6	4.9	5.5	33.71	35.36	35.96	35.01	61.7	14.8
April	65	47	63	95	22	.207	.212	.226	.478	.096	5.668	N. 68° 30′ W., 224	5.5	7.0	5.6	6 0	33.76	33.74	36.01	34.50	57.8	14.8
May	69	50	69	97	18	.361	.383	.393	.691	.121	1.946	S. 7° 36′ W., 90	5.0	5.6	4.1	4.9	49.12	50.26	51.13	50.17	68.3	22 6
June	72	57	72	95	29	.501	.541	.512	.964	.162	5.229	S. 71° 2′ W., 393	5.5	5.8	5.5	5.6	57.31	59.07	58.15	58.17	78.2	29.3
July	69	51	69	90	32	.551	.574	.579	.890	.268	3.915	N. 84° 6′ W., 166	5.8	5.2	3.5	4.8	60.88	61.78	62.42	61.69	75.8	42.1
August	75	50	72	92	31	.551	.551	.581	1.014	.268	4.447	S. 26° 34′ E., 55	4.5	5.8	4.3	4.9	60.86	60.63	62.60	61.36	79.7	42.1
September . .	79	59	76	97	29	.438	.462	.472	.658	.181	7.779	N. 70° 38′ W., 236	6.2	6.6	5.6	6.1	54.37	55.90	56.72	55.66	66.8	32.0
October . . .	75	50	69	97	23	.259	.274	.280	.569	.065	3.210	N. 75° 21′ W., 405	5.8	5.5	4.8	5.4	39.26	39.75	40.85	39.95	62.7	8.9
November . . .	77	56	71	97	32	.227	.241	.241	.559	.112	3.796	N. 54° 52′ W., 206	5.6	5.7	4.1	5.1	35.82	37.36	37.51	36.89	62.2	20.8
December . . .	76	69	77	96	46	.148	.171	.158	.551	.043	3.460	N. 37° 45′ W., 229	7.0	7.5	4.8	6.5	24.09	27.25	25.57	25.64	61.7	—0.1
Annual means .	74	56	71	97	18	.313	.331	.332	1.014	.028	54.752	N. 79° 31′ W., 255	5.8	6.1	4.7	5.5	41.76	43.06	43.50	42.77	79.7	—9.4
Winter	80	66	76	100	31	.158	.171	.168	.524	.028	14.258	N. 56° 40′ W., 268	6.8	6.7	5.3	6.3	26.92	28.79	28.72	28.14	60 3	—9.4
Spring	69	49	66	97	18	.258	.274	.280	.691	.085	14.117	S. 76° 32′ W., 148	5.5	6.1	4.9	5.5	38.86	39.79	41.03	39.89	68.3	14.8
Summer . . .	72	53	71	95	29	.534	.555	.557	1.014	.162	13.591	S. 73° 8′ W., 182	5.3	5 6	4.4	5.1	59.68	60.49	61.06	60.41	79.7	29.3
Autumn . . .	77	55	72	97	23	.308	.326	.331	.658	.065	14.785	N. 69° 12′ W., 281	5.9	5.9	4.8	5.5	43.15	44.34	45.03	44.17	66.8	8.9
For eight years.	77	58	73	100	13	.328	.348	.350	1.059	.013	44.603	N. 74° 13′ W., 214	5.9	6.0	4.4	5.4		43.94			79.7	—16.5

TABLE I.—*Mortality for the year* 1859, *Collated from*

DISEASES.	FIRST QUARTER, COMMENCING JANUARY 1, 1859.									SECOND COMMENCING					
	Jan.		Feb.		March.		Adults.	Minors.	Total.	April.		May.		June.	
	M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F.
Abscess	3	1	2	..	4	3	8	5	13	3	4	2	..	..	..
" of liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Amenorrhœa	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Anæmia	..	..	..	..	..	2	2	..	2	..	1	..	..	1	1
Aneurism	1	..	1	..	2	..	4	..	4	1	..	..	..	..	..
Apoplexy	8	3	3	2	5	3	24	..	24	2	4	4	4	5	2
Asphyxia	2	..	1	3	1	1	1	7	8	2	1	2	..	..	3
Asthma	1	2	3	..	1	..	5	2	7	1	..	1	2	1	..
Cancer and scirrhus	..	2	..	..	1	..	2	1	3	1	3	..	..	2	4
" of the stomach	..	3	1	4	3	..	11	..	11	2	2	2	3	..	3
" " rectum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" " uterus	..	..	..	4	..	8	12	..	12	..	2	..	..	..	5
Casualties	11	1	10	1	3	3	19	10	29	11	5	6	1	17	4
Burns and scalds	5	3	..	2	..	2	3	9	12	1	2	2	1	2	4
Drowned	..	1	1	..	5	..	6	1	7	3	..	10	2	15	1
Exposure	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..
Fracture	1	..	..	..	..	1	2	..	2	1	..	..	1	1	1
" of pelvis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Neglect and want	..	..	..	..	..	..	..	..	..	..	..	2	1	4	2
Poisoning	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Suicide	..	1	..	..	..	1	2	..	2	1	..	1	..	1	1
Violence	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..
Cholera infantum	..	..	..	..	..	..	..	..	..	4	2	5	5	31	32
" morbus	..	..	..	..	..	..	..	..	..	..	..	..	..	2	4
Chlorosis	..	..	..	..	..	1	..	1	1	..	..	..	..	..	..
Congestion of the brain	13	4	14	4	8	11	26	28	54	6	5	12	4	12	8
" " lungs	3	3	3	8	10	11	19	19	38	4	5	4	4	4	1
Consumption of the lungs	65	56	68	57	78	75	377	22	399	72	70	66	47	68	56
Convulsions	19	19	29	31	37	21	11	145	156	18	9	22	22	26	28
Croup	17	17	11	17	16	14	..	92	92	12	16	10	11	4	6
Cyanosis	1	..	5	2	..	2	..	10	10	..	2	1	2	2	1
Coup de soleil	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Debility	20	22	13	24	27	22	58	70	128	17	14	21	23	25	25
Diabetes	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..
Diarrhœa	1	1	3	2	6	6	13	6	19	4	2	2	3	5	5
Disease of the brain	10	3	9	..	9	2	20	13	33	7	5	5	1	16	9
" " heart	13	11	12	17	16	10	68	11	79	12	4	4	7	7	13
" " kidneys	1	2	2	..	..	..	3	2	5	..	..	..	..	..	..
" " liver	1	..	..	1	..	..	2	..	2	1	2	3	..	3	1
" " spine	..	3	..	1	..	..	1	3	4	2	1	..	1	1	2
Dropsy of the brain	8	9	10	10	10	10	2	55	57	16	4	11	10	18	11
" " chest	6	6	4	4	6	6	31	1	32	2	8	3	10	8	15
" " heart	..	1	1	..	..	..	1	1	2	..	2	1	..	1	..
Dysentery	..	3	4	1	3	1	7	5	12	4	..	5	2	15	16
Dyspepsia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Effusion on the brain	3	3	5	1	5	5	2	20	22	3	2	1	5	2	2
Epilepsy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	2	4	4	6	4	..	7	13	20	4	3	2	4	6	6
Exhaustion	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Fever, bilious	1	..	2	1	2	..	6	..	6	2	..	..	3	4	3
" enteric	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" intermittent	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" puerperal	..	5	..	8	..	3	15	1	16	..	6	..	5	..	1
" remittent	2	..	..	..	..	..	1	1	2	..	..	..	1	..	..
" scarlet	4	7	13	15	13	15	..	67	67	6	9	5	8	13	12
" typhoid	12	10	13	10	17	12	45	29	74	13	8	15	16	10	6
" typhus	3	3	3	1	2	2	9	5	14	1	1	5	..	3	4
Gangrene	1	1	2	..	3	2	6	3	9	..	..	1	1	..	..
Gout	1	..	..	..	1	..	2	..	2	..	..	..	..	..	..
" of the heart	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..
Hemorrhage	2	3	1	1	..	..	4	3	7	1	3	1	..	..	1
" of the bowels	..	..	1	..	..	..	1	..	1	..	..	..	2	1	..
" " lungs	..	..	1	1	3	4	7	2	9	..	1	4	2	1	1
" " uterus	..	..	..	2	..	1	3	..	3	..	1	..	1	..	..
Hernia	..	..	1	1	1	..	3	..	3	..	..	..	..	..	..
Hooping-cough	..	2	1	3	2	1	..	9	9	4	..	1	4	..	2
Hysteria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Inanition	2	4	2	3	9	1	3	18	21	3	3	3	6	4	2
Inflammation of the brain	19	14	14	11	19	21	16	82	98	24	9	11	9	17	18

Returns made to the Health Office. By WILSON JEWELL, M. D.

QUARTER, April 2, 1859.			THIRD QUARTER, Commencing July 2, 1859.									FOURTH QUARTER, Commencing October 1, 1859.									Total for the year.
			July.		Aug.		Sept.					Oct.		Nov.		Dec.					
Adults.	Minors.	Total.	M.	F.	M.	F.	M.	F.	Adults.	Minors.	Total.	M.	F.	M.	F.	M.	F.	Adults.	Minors.	Total.	
4	5	9	1	..	2	..	..	..	1	2	3	2	..	2	1	2	2	5	4	9	34
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
2	1	3	1	1	2	2	2	..	3	5	8	1	..	..	1	1	..	2	1	3	16
1	..	1	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	6
19	2	21	1	..	5	3	3	4	16	..	16	3	5	5	6	7	5	26	5	31	92
2	6	8	..	..	1	1	1	..	..	3	3	..	2	3	1	1	1	..	8	8	27
4	1	5	..	..	1	2	..	..	2	1	3	1	..	..	1	1	4	6	1	7	22
9	1	10	..	..	3	2	3	3	10	1	11	..	1	5	7	2	2	15	2	17	41
10	2	12	4	..	2	1	..	..	7	..	7	1	1	2	3	..	..	6	1	7	37
..	..	..	1	..	1	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..	2
7	..	7	..	5	..	9	..	7	21	..	21	..	4	..	3	..	5	12	..	12	52
28	16	44	6	2	8	2	7	1	13	13	26	6	4	14	1	12	5	28	14	42	141
5	7	12	5	6	1	2	2	..	6	10	16	5	1	1	4	2	3	3	13	16	56
20	11	31	11	2	20	..	13	..	25	21	46	3	..	6	..	2	..	9	2	11	95
3	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
2	2	4	1	..	1	1	1	1	5	..	5	1	..	1	..	..	..	2	..	2	13
..	..	..	..	..	..	..	1	..	..	1	1	..	..	..	..	..	..	..	..	..	1
7	2	9	1	1	..	..	3	1	1	5	6	1	..	2	3	1	1	4	4	8	23
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	1
4	..	4	1	..	3	1	3	2	8	2	10	..	..	1	2	2	..	5	..	5	21
2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
..	79	79	102	92	47	57	14	9	..	321	321	3	4	1	..	..	..	..	8	8	408
1	5	6	5	8	5	..	..	..	13	5	18	..	..	..	..	..	..	..	..	..	24
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
23	24	47	13	15	12	12	7	6	20	45	65	7	8	12	4	9	8	17	31	48	214
10	12	22	2	4	4	1	1	6	9	9	18	4	3	2	2	7	12	12	18	30	108
351	28	379	54	57	70	67	49	46	291	52	343	51	61	74	82	65	51	335	49	384	1505
4	121	125	23	24	30	25	17	11	9	121	139	21	8	24	25	18	13	8	101	109	520
1	58	59	7	9	5	11	7	5	..	44	44	15	13	23	30	22	14	..	117	117	312
..	8	8	3	2	5	3	1	1	..	15	15	2	1	3	2	3	..	..	11	11	44
1	..	1	3	..	1	..	..	..	4	..	4	..	..	..	..	..	..	..	..	..	5
55	60	115	32	21	29	25	16	13	58	78	136	18	24	14	13	14	20	58	45	103	482
..	..	..	..	1	..	..	..	..	1	..	1	..	..	1	..	..	..	1	..	1	3
7	14	21	18	28	11	8	5	5	64	11	75	2	1	1	3	1	3	9	2	11	126
14	29	43	9	6	7	4	8	3	25	12	37	8	2	10	5	3	..	21	7	28	141
29	18	47	6	7	9	6	5	5	26	12	38	8	8	11	5	8	8	34	14	48	212
..	..	..	..	..	2	1	1	1	4	1	5	2	1	2	2	3	1	9	2	11	21
6	4	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12
3	4	7	..	..	..	1	..	..	..	1	1	1	1	2	1	1	..	1	5	6	18
..	70	70	17	18	17	8	6	6	..	72	72	5	5	5	7	8	5	2	33	35	234
43	3	46	5	6	10	10	5	6	39	3	42	4	8	8	8	7	4	35	4	39	159
2	2	4	..	..	2	1	1	..	2	2	4	1	1	1	1	1	3	7	1	8	18
18	24	42	11	13	20	12	5	2	18	45	63	4	1	2	3	1	1	10	2	12	129
..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	1
4	11	15	5	7	8	6	1	1	3	25	28	1	2	..	2	3	3	3	8	11	76
..	..	..	..	1	..	..	..	..	..	1	1	..	1	..	1	3	1	5	1	6	7
6	19	25	2	..	1	1	2	..	4	2	6	2	2	7	1	3	4	8	11	19	70
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
3	9	12	2	2	..	1	..	..	4	1	5	..	1	..	..	..	..	..	1	1	24
..	..	..	..	..	1	..	..	..	1	..	1	1	..	..	3	..	..	2	2	4	5
..	..	..	..	..	..	..	..	1	..	1	1	3	1	..	..	..	..	2	2	4	5
12	..	12	..	5	..	5	..	3	13	..	13	..	3	..	4	..	3	10	..	10	51
..	1	1	1	2	6	..	3	1	9	4	13	..	..	3	2	1	1	3	4	7	23
..	53	53	3	5	7	8	2	3	..	28	28	5	11	12	17	17	22	..	84	84	232
52	16	68	7	12	14	12	7	15	48	19	67	16	7	10	12	5	5	35	20	55	264
10	4	14	..	3	2	4	2	1	9	3	12	1	2	1	1	1	1	4	3	7	47
1	1	2	1	1	2	..	1	..	3	2	5	1	..	1	2	1	..	3	2	5	21
..	..	..	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	3
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
4	2	6	5	3	2	2	2	5	13	6	19	..	..	2	6	..	1	7	2	9	41
..	..	..	2	..	..	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..	3
7	2	9	..	..	..	..	..	..	..	..	..	4	4	..	..	1	1	9	1	10	28
2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	2	7
..	..	..	..	1	1	1	..	..	3	..	3	1	2	2	1	1	1	8	..	8	14
..	11	11	1	3	2	2	3	3	..	14	14	3	3	3	4	3	2	..	18	18	52
..	..	..	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1
2	19	21	6	8	16	10	5	5	6	44	50	7	4	4	6	5	5	3	28	31	123
74	14	88	18	13	16	18	18	8	11	80	91	12	6	10	11	7	7	14	39	53	330

TABLE I.—*Mortality*

DISEASES.	FIRST QUARTER, COMMENCING JANUARY 1, 1859.									SECOND COMMENCING					
	Jan.		Feb.		March.		Adults.	Minors.	Total.	April.		May.		June.	
	M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F.
Inflammation of the bronchi	4	9	7	6	10	6	20	22	42	7	5	6	4	3	1
" " kidneys	1	1	..	..	..	..	2	..	2	..	..	..	..	..	..
" " larynx	..	1	1	2	4	1	3	6	9	..	2	1	4	1	2
" " liver	8	2	1	..	4	7	17	5	22	2	4	2	5	3	3
" " lungs	31	36	32	28	49	35	154	57	211	41	25	21	17	17	17
" " peritoneum	2	1	..	5	6	5	13	6	19	2	2	3	1	4	3
" " pleura	2	..	1	2	2	2	2	7	9	1	1	..	1	2	1
" " stomach & bowels	12	10	10	6	12	10	34	26	60	10	9	18	9	8	14
" " uterus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Intussusception	..	..	..	..	2	..	1	1	2	..	..	..	1	..	1
Jaundice	1	2	..	..	2	3	3	5	8	2	1	1	..	1	..
Mania	..	..	1	..	..	..	1	..	1	..	..	..	1	..	..
Mania à potu	7	1	4	2	8	1	23	..	23	4	1	9	4	5	1
Marasmus	8	9	8	11	25	11	11	61	72	12	7	17	10	23	15
Measles	3	2	4	..	6	5	..	20	20	3	3	5	7	2	..
Mortification	2	1	..	..	..	1	2	2	4	..	2	..	2	1	..
Old age	9	9	8	13	11	17	67	..	67	8	8	10	20	9	15
Neuralgia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Palsy	4	7	6	6	8	3	34	..	34	4	5	8	3	6	..
Purpura	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pyæmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatism	1	1	1	1	..	2	4	2	6	..	..	1	1	..	1
Scrofula	1	2	1	3	1	2	2	8	10	2	3	4	3	2	6
Smallpox	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..
Sore throat	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stillborn	32	24	25	24	33	28	..	166	166	16	16	25	25	30	28
Syphilis	..	..	..	..	1	1	1	1	2	..	..	..	..	..	..
Tabes mesenterica	2	..	1	1	..	1	..	5	5	..	1	1	..	..	1
Teething	1	..	1	1	2	..	..	5	5	2	..	2	..	1	1
Tetanus	..	1	2	1	..	..	2	2	4	..	1	..	..	2	..
Thrush	..	..	..	..	1	..	..	1	1	..	..	..	..	..	..
Tumours	..	..	..	..	..	1	1	..	1	..	..	..	..	1	1
Ulceration	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
" of the bowels	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..
" " throat	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Unknown	6	3	7	2	6	3	18	9	27	7	4	1	3	2	2
Worms	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Totals of the sex	401	355	395	374	525	428	1288	1190	2478	404	322	392	343	482	438

	FIRST QUARTER, COMMENCING JANUARY 1, 1859.						SECOND QUARTER, COMMENCING APRIL 2, 1859.					
	Jan.	Feb.	March.	Adults.	Minors.	Totals.	April.	May.	June.	Adults.	Minors.	Totals.
Under 1 year	197	214	260	..	..	671	173	181	298	..	..	652
From 1 to 2 years	64	60	98	..	..	222	56	79	92	..	..	227
" 2 to 5 "	55	69	85	..	..	209	78	63	74	..	..	215
" 5 to 10 "	25	24	18	..	..	67	30	22	27	..	..	79
" 10 to 15 "	8	9	17	..	..	34	15	12	16	..	..	43
" 15 to 20 "	18	21	37	..	..	76	22	22	21	..	..	65
" 20 to 30 "	83	82	101	..	..	266	81	81	80	..	..	242
" 30 to 40 "	83	89	86	..	..	258	86	79	86	..	..	251
" 40 to 50 "	64	63	83	..	..	210	56	57	72	..	..	185
" 50 to 60 "	49	46	54	..	..	149	47	49	51	..	..	147
" 60 to 70 "	41	33	45	..	..	119	43	36	43	..	..	122
" 70 to 80 "	37	35	45	..	..	117	22	34	38	..	..	94
" 80 to 90 "	30	20	20	..	..	70	13	15	18	..	..	46
" 90 to 100 "	1	2	4	..	..	7	4	5	3	..	..	12
" 100 to 110 "	1	2	..	..	..	3	..	..	1	..	..	1
Total of monthly mortality	756	769	953	..	..	..	726	735	920	..	..	..
Total males for the quarter	..	..	..	..	..	1321	..	..	..	..	..	1278
" females "	..	..	..	..	..	1157	..	..	..	..	..	1103
" adults "	..	..	..	1199	..	..	..	..	..	1100	..	..
" minors "	..	..	..	..	1279	..	..	..	..	..	1281	..
" for the quarter	..	..	..	..	..	2478	..	..	..	..	..	2381

for 1859—Continued.

QUARTER, April 2, 1859.			THIRD QUARTER, Commencing July 2, 1859.									FOURTH QUARTER, Commencing October 1, 1859.									Total for the year.
Adults.	Minors.	Total.	July.		Aug.		Sept.		Adults.	Minors.	Total.	Oct.		Nov.		Dec.		Adults.	Minors.	Total.	
			M.	F.	M.	F.	M.	F.				M.	F.	M.	F.	M.	F.				
18	8	26	5	4	3	1	3	3	6	13	19	2	2	6	4	11	7	12	20	32	119
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
4	6	10	2	..	3	1	..	1	3	4	7	1	2	1	..	1	3	5	3	8	34
14	5	19	10	3	5	5	3	1	23	4	27	3	2	5	6	4	4	20	4	24	92
39	99	138	4	5	13	11	12	4	11	38	49	14	7	34	28	36	27	39	107	146	544
10	5	15	..	1	1	1	1	3	6	1	7	1	1	1	1	2	5	8	3	11	52
5	1	6	1	1	..	..	..	..	1	1	2	2	..	1	..	1	2	4	2	6	23
30	38	68	10	10	16	11	9	8	28	36	64	12	10	12	10	10	11	40	25	65	257
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1	1
1	1	2	..	..	..	..	..	..	..	..	..	..	..	1	..	2	1	2	2	4	8
2	3	5	1	..	1	1	..	1	1	3	4	..	..	..	1	2	3	3	3	6	23
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	..	2	4
24	..	24	3	1	6	2	3	..	15	..	15	4	1	7	1	5	2	20	..	20	82
10	74	84	23	33	39	40	16	15	9	157	166	12	4	7	7	7	7	9	35	44	366
..	20	20	1	5	1	2	1	..	..	10	10	..	..	..	..	1	..	..	1	1	51
4	1	5	..	..	1	..	..	1	2	..	2	..	..	1	2	..	..	2	1	3	14
70	..	70	3	10	9	8	6	3	39	..	39	5	2	4	11	7	5	34	..	34	210
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	2
24	2	26	5	3	5	2	2	4	20	1	21	3	3	3	3	4	3	18	1	19	100
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	1
..	..	..	..	..	1	..	1	..	1	1	2	1	..	..	..	..	..	..	1	1	3
3	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9
5	15	20	..	1	3	2	2	1	1	8	9	1	..	4	7	3	1	5	11	16	55
..	..	..	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	2
..	..	..	..	1	2	1	2	2	1	7	8	2	3	..	2	1	4	1	11	12	20
..	140	140	22	24	29	27	29	27	..	158	158	29	28	38	36	33	30	..	194	194	658
..	..	..	..	..	..	..	1	1	..	2	2	..	..	..	..	..	1	1	..	1	5
..	3	3	6	4	3	5	3	1	1	21	22	..	2	1	..	1	..	..	4	4	34
..	6	6	2	3	2	1	1	..	..	9	9	..	..	..	..	1	1	..	2	2	22
1	2	3	1	..	1	..	..	..	1	1	2	3	..	..	1	1	..	5	..	5	14
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
2	..	2	..	..	..	..	1	..	1	2	..	2	..	3	1	1	3	2	9	1	10	15
..	1	1	..	..	..	..	..	3	..	2	1	3	1	3	1	2	..	..	5	2	7	11
..	..	..	1	1	..	1	2	..	4	1	5	..	..	..	..	..	..	..	..	..	..	6
1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
12	7	19	..	2	4	..	3	5	9	5	14	4	2	7	3	4	3	16	7	23	83
..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
1161	1220	2381	496	507	563	474	336	272	1025	1623	2648	337	292	428	428	398	352	1062	1172	2235	9742

	THIRD QUARTER, Commencing July 2, 1859.						FOURTH QUARTER, Commencing October 1, 1859.					
	July.	Aug.	Sept.	Adults.	Minors.	Totals.	Oct.	Nov.	Dec.	Adults.	Minors.	Totals.
Under 1 year . . .	450	395	188	..	..	1033	186	208	219	..	..	613
From 1 to 2 years . .	142	102	59	..	..	303	40	68	67	..	..	175
" 2 to 5 " . .	54	73	36	..	..	163	55	85	88	..	..	228
" 5 to 10 " . .	26	36	21	..	..	83	19	31	15	..	..	65
" 10 to 15 " . .	12	9	15	..	..	36	10	9	8	..	..	27
" 15 to 20 " . .	16	27	22	..	..	65	18	30	16	..	..	64
" 20 to 30 " . .	66	112	57	..	..	235	72	98	75	..	..	245
" 30 to 40 " . .	75	76	62	..	..	213	63	94	54	..	..	211
" 40 to 50 " . .	40	60	50	..	..	150	49	63	59	..	..	171
" 50 to 60 " . .	36	51	32	..	..	119	44	60	57	..	..	161
" 60 to 70 " . .	44	44	32	..	..	120	39	52	41	..	..	132
" 70 to 80 " . .	19	23	19	..	..	61	18	37	30	..	..	85
" 80 to 90 " . .	15	27	13	..	..	55	16	20	20	..	..	56
" 90 to 100 " . .	7	2	1	..	..	10	..	1	1	..	..	2
" 100 to 110 " . .	1	..	1	..	..	2	..	..	..	..	..	..
Total of monthly mortality	1003	1037	608	..	..	..	629	856	750	..	..	..
Total males for the quarter	..	..	..	..	..	1395	..	..	..	..	..	1163
" females "	..	..	..	..	..	1253	..	..	..	..	..	1072
" adults "	..	..	..	965	..	..	..	..	..	1063	..	..
" minors "	..	..	..	..	1683	..	..	..	..	..	1172	..
" for the quarter . .	..	..	..	..	..	2648	..	..	..	..	..	2235

TABLE II.—*Mortality from Diseases of the Lungs and Air-passages.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1859.			
	1857.	1858.	1859.	1st.	2d.	3d.	4th.
Angina pectoris	1	...	...	...	...	...	...
Asphyxia	15	37	27	8	8	3	8
Asthma	33	12	22	7	5	3	7
Catarrh	33	22	...	...	...	...	...
Congestion of the lungs	132	78	108	38	22	18	30
Consumption " "	1544	1659	1505	399	379	343	384
Croup	256	292	312	92	59	44	117
Disease of the chest	7	11	...	...	...	...	...
" lungs	53	23	...	...	...	...	...
Dropsy of the chest	48	140	159	32	46	42	39
Effusion on the chest	3	...	...	...	...	...	...
" lungs	4	...	...	...	...	...	...
Emphysema	1	...	...	...	...	...	...
Empyema	1	...	...	...	...	...	...
Gangrene of the lungs	1	...	...	...	...	...	...
Hemorrhage from the lungs	18	...	28	9	9	...	10
Influenza	9	...	...	...	...	...	...
Inflammation of the bronchi	179	100	119	42	26	19	32
" " chest	16	1	...	...	...	...	...
" " larynx	14	...	34	9	10	7	8
" " lungs	504	562	544	211	138	49	146
" " pleura	27	2	23	9	6	2	6
" " trachea	11	...	...	...	...	...	...
Totals	2910	2939	2881	856	708	530	787
Hooping-cough	51	153	52	9	11	14	18
Totals	2961	3092	2933	865	719	544	805
Total mortality, exclusive of stillborn	10338	10162	9084				
Per cent. from diseases of the lungs	28.13	30.43	32.17				
Per cent. from consumption of the lungs	14.93	16.38	16.56				

TABLE III.—*Deaths from Consumption of the Lungs, during each Month in the year* 1859, *at fourteen distinct periods of life, with the Sexes designated for each month.*

AGES.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Under 1 year	...	...	1	...	...	1	1	1	...	1	1	2	8
From 1 to 2 years	...	...	...	...	...	1	1	1	2	...	1	...	6
" 2 to 5 "	...	...	...	1	...	...	3	2	...	3	1	...	10
" 5 to 10 "	...	...	...	2	1	...	2	2	1	...	2	1	11
" 10 to 15 "	...	...	2	2	...	2	3	1	2	1	1	1	15
" 15 to 20 "	1	7	11	6	8	4	3	15	12	8	20	6	101
" 20 to 30 "	37	45	51	44	36	39	36	61	26	33	54	33	495
" 30 to 40 "	39	44	39	39	34	35	30	28	24	32	38	27	409
" 40 to 50 "	22	18	26	28	13	22	19	16	18	13	12	21	228
" 50 to 60 "	9	7	14	9	12	9	2	7	7	10	14	16	116
" 60 to 70 "	4	3	5	9	7	7	10	2	3	7	8	7	72
" 70 to 80 "	6	1	3	1	2	3	...	1	...	2	3	1	23
" 80 to 90 "	3	...	1	1	...	1	...	...	...	2	1	1	10
" 90 to 100 "	...	...	...	...	...	...	1	...	...	...	...	...	1
Male	65	68	78	72	66	68	54	70	49	51	74	65	780
Female	56	57	75	70	47	56	57	67	46	61	82	51	725
Monthly totals	121	125	153	142	113	124	111	137	95	112	156	116	1505
Quarterly totals	399			379			343			384			1505

TABLE IV.—*Mortality from Diseases of the Nervous System.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1859.			
	1857.	1858.	1859.	1st.	2d.	3d.	4th.
Apoplexy	115	111	92	24	21	16	31
Chorea	1	...	...	...	...	...	...
Coma	1	...	...	...	...	...	...
Concussion of the brain	7	1	...	...	...	...	...
Congestion of the brain	201	241	214	54	47	65	48
Convulsions	556	609	520	156	125	130	109
Coup de soleil	6	26	5	...	1	4	...
Cramp	10	...	...	...	...	...	...
Disease of the brain	100	134	141	33	43	37	28
Dropsy of the brain	173	261	234	57	70	72	35
Effusion of the brain	92	72	76	22	15	28	11
Epilepsy	18	2	7	...	...	1	6
Inflammation of the brain	306	315	330	98	88	91	53
Mania or insanity	7	9	4	1	1	...	2
Mania à potu	62	85	82	23	24	15	20
Neuralgia	...	1	2	...	1	...	1
Palsy	92	105	100	34	26	21	19
Softening of the brain	14	3	...	...	...	...	...
Teething	17	12	22	5	6	9	2
Tetanus	11	13	14	4	3	2	5
Trismus	2	...	...	...	...	...	...
Totals	1791	2000	1843	511	471	491	370
Total mortality, exclusive of stillborn	10338	10162	9084				
Per cent. of total mortality	17.33	19.58	20.28				

TABLE V.—*Mortality from Diseases of the Organs of Nutrition.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1859.			
	1857.	1858.	1859.	1st.	2d.	3d.	4th.
Abscess	35	31	34	13	9	3	9
" of the liver	1	...	1	...	1	...	...
Cancer of the stomach and bowels	7	...	39	11	12	9	7
Cholera	3	...	...	...	...	...	...
" infantum	534	662	408	...	79	321	8
" morbus	10	53	24	...	6	18	...
Cirrhosis of the liver	3	...	...	...	...	...	...
Colic	7	...	...	...	...	...	...
Constipation	...	1	...	...	...	...	...
Consumption of the bowels	5	...	...	...	...	...	...
Diarrhœa	119	138	126	19	21	75	11
Disease of the liver	41	68	12	2	10	...	...
" stomach and bowels	17	12	...	...	...	...	...
Dropsy	239	95	...	...	...	...	...
" abdominal	6	...	...	...	...	...	...
Dysentery	198	240	129	12	42	63	12
Dyspepsia	2	1	1	...	...	1	...
Gout	5	1	3	2	...	1	...
Icterus	11	16	23	8	5	4	6
Inflammation of the liver	25	30	92	22	19	27	24
" " peritoneum	56	55	52	19	15	7	11
" " stomach and bowels	299	273	257	60	68	64	65
Intussusception	4	2	8	2	2	...	4
Marasmus	506	463	366	72	84	166	44
Obstruction of the bowels	2	2	...	...	...	...	...
Scrofula	51	54	55	10	20	9	16
Tabes mesenterica	44	56	34	5	3	22	4
Ulceration of the stomach and bowels	6	...	6	1	5	...	...
Totals	2236	2253	1670	258	401	790	221
Total mortality, exclusive of stillborn	10338	10162	9084				
Per cent. of total mortality	21.62	22.17	18.38				

TABLE VI.—*Mortality from Diseases of the Urino-Genital Organs.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1859.			
	1857.	1858.	1859.	1st.	2d.	3d.	4th.
Albuminuria	7	1	...	...	...	...	...
Amenorrhœa	...	...	1	...	1	...	...
Cancer of uterus	4	...	52	12	7	21	12
Childbed	7	1	...	...	...	...	...
Chlorosis	1	...	1	1	...	...	...
Convulsions, puerperal	1	...	...	...	...	...	...
Diabetes	7	3	3	1	...	1	1
Disease of the bladder	1	1	...	...	...	...	...
" kidneys	8	...	21	5	...	5	11
" ovaries	2	...	...	...	...	...	...
" uterus	2	...	...	...	...	...	...
Fever, puerperal	49	36	51	16	12	13	10
Hemorrhage from uterus	5	...	7	3	2	...	2
Inflammation of the bladder	9	3	...	...	...	...	...
" " kidneys	7	7	2	2	...	...	...
" " uterus	8	...	...	...	...	...	...
Rupture of the urethra	1	...	...	...	...	...	...
Strangury	...	8	...	...	...	...	...
Suppression of urine	3	...	...	...	...	...	...
Syphilis	2	3	5	2	...	2	1
Tumour, ovarian	1	...	...	...	...	...	...
Ulceration of the uterus	1	...	...	...	...	...	...
Totals	126	63	143	42	22	42	37
Total mortality, exclusive of stillborn	10338	10162	9084				
Per cent. of total mortality	1.21	0.62	1.75				

TABLE VII.—*Mortality from Fevers.*

DISEASES.	ANNUAL AGGREGATES.			QUARTERS OF 1858.			
	1857.	1858.	1859.	1st.	2d.	3d.	4th.
Fever	3	...	...	...	...	...	...
" bilious	25	43	24	6	12	5	1
" cerebral	2	1	...	...	...	...	...
" congestive	5	1	...	...	...	...	...
" continued	2	...	...	...	...	...	...
" enteric	2	...	5	...	...	1	4
" gastric	4	...	...	...	...	...	...
" hectic	2	...	...	...	...	...	...
" intermittent	5	2	5	...	...	1	4
" malignant	...	...	...	...	...	...	...
" nervous	9	1	...	...	...	...	...
" pernicious	...	...	...	...	...	...	...
" puerperal	49	36	51	16	12	13	10
" remittent	23	17	23	2	1	13	7
" scarlet	704	241	232	67	53	28	84
" typhoid	175	197	264	74	68	67	55
" typhus	38	71	47	14	14	12	7
" " icterodes	...	16	...	...	...	...	...
" yellow	...	...	...	...	...	...	...
Totals	1048	626	651	179	160	140	172
Total mortality, exclusive of stillborn	10338	10162	9084				
Per cent. of total mortality	10.13	6.16	7.16				

TABLE VIII.—*Deaths, showing the Sexes, for each Month in the Year, and the Number at Fifteen Distinct Periods of Life, with the Percentages at each Period to the Total Mortality, Exclusive of Stillborn—also the number of Stillborn Children for each Month, and their Sexes.*

Months.	Stillborn.			Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.	Monthly per cent. of deaths to total.
	M.	F.	Total.																				
January	32	24	56	401	355	188	179	197	64	55	25	8	18	83	83	64	49	41	37	30	1	1	756	7.76
February	25	24	49	395	374	210	187	214	60	69	24	9	21	82	89	63	46	33	35	20	2	2	769	7.89
March	33	28	61	525	428	286	229	260	98	85	18	17	37	101	86	83	54	45	45	20	4	...	953	9.78
April	16	16	32	404	322	211	163	173	56	78	30	15	22	81	86	56	47	43	22	13	4	...	726	7.46
May	25	25	50	392	343	199	180	181	79	63	22	12	22	81	79	57	49	36	34	15	5	...	735	7.54
June	30	28	58	482	438	275	253	298	92	74	27	16	21	80	86	72	51	43	38	18	3	1	920	9.45
July	22	24	46	496	507	344	356	450	142	54	26	12	16	66	75	40	36	44	19	15	7	1	1003	10.29
August	29	27	56	563	474	340	302	395	102	73	36	9	27	112	76	60	51	44	23	27	2	...	1037	10.64
September	29	27	56	336	272	196	145	188	59	36	21	15	22	57	62	50	32	32	19	13	1	1	608	6.24
October	29	28	57	337	292	172	156	186	40	55	19	10	18	72	63	49	44	39	18	16	...	...	629	6.46
November	38	36	74	428	428	213	218	208	68	85	31	9	30	98	94	63	60	52	37	20	1	...	856	8.78
December	33	30	63	398	352	215	198	219	67	88	15	8	16	75	54	59	57	41	30	20	1	...	750	7.69
Totals	341	317	658	5157	4585	2849	2566	2969	927	815	294	140	270	988	933	716	576	493	357	227	31	6	9742	
Per ct. of totals				52.83	47.06	29.24	26.34	30.47	9.51	8.26	3.01	1.43	2.77	10.14	9.57	7.35	5.90	5.06	3.66	2.22	0.31	0.06		

Table I. The mortality of our city for 1859, as found in this table, which is in accordance with the record furnished at the health office, has amounted to 9,742. This number of deaths is 955, or nearly 9 per cent. less than those for 1858, and 12.19 per cent. less than the average of deaths for the past four years.

Should the population of Philadelphia reach the estimate recently ascribed to it in our daily journals, of 650,000—which is a liberal calculation—the mortality gives but one death in every 66.72 of the population, or 14.98 deaths to every 1,000 living. Not willing, however, to be adjudged as introducing an exaggerated statement into my report, I prefer to fix the standard at what I conceive to be a more reliable calculation, and base the estimates upon a population of 625,000. From this assessment, it will be found that the deaths amounted to only 1.55 per cent.—or equal to 1 in every 64.15—or as 15.58 in each 1,000 of the population.

This death rate of 15 in each 1,000 of the population, is less by 2 in 1,000, than the standard affixed to the death rate of about a million of people residing in sixty-four districts selected from various parts of England, and who were living under the least unfavourable sanitary condition. It will be remembered, also, that the death rate in large cities is affixed at a much higher point than in rural districts. In London, it is 25 in every 1,000. In New York city in 1859, estimating the population at 800,000, the death rate was 27 in 1,000.

A comparison of the rate of mortality to population of our own with several other cities, will show still more clearly the striking difference in the death rate pressure upon populations in different places.

	Population.	Mortality.	Ratio of deaths to pop.	Deaths to each 1,000.	Per cent. of deaths to pop.
Providence .	52,000	982	1 in 52.09	19	1.83
Boston . .	180,000	3,738	1 in 48.15	21	2.07
New York .	800,000	21,645	1 in 36.09	27	2.70
Philadelphia	625,000	9,742	1 in 64.15	15	1.55
Baltimore .	253,000	5,039	1 in 50.02	20	2.

These figures are from official records, and may be relied upon. Consulting the several death rolls, we will have an approximation, at least, towards a comparison of the healthiness of the cities named. The most glaring inequality will be found to exist between the death rate to population of our own city, and that of our sister city New York. Notwithstanding this marked disparity of the low rate of 1 in 64.15 in this city, and the high rate of 1 in 36.09 in New York; the city inspector of the latter city holds the following language in his annual report—"New York city at this day can lay claim to the privilege of being numbered with those of the most healthy in the world." It is unnecessary to comment upon this extraordinary statement, when the above figures contradict so positively the assertion; still, it is to be regretted that the inspector had not availed himself of the above statistical information, which would have obliged him to have presented a widely different statement, although one indicating a more

severe pressure of sanitary evils upon the health of their population, than his report develops.

Providence, R. I., has of late been characterized as one of the best regulated cities in the country, in a sanitary point of view. My knowledge of the accurate manner in which the city registrar, Dr. Snow, performs the duties of his office, especially in that department which relates to the hygienic defences of life, confirms this opinion. Nevertheless, in comparing the figures in the above table, I find that the death rate in our own city is as 1 in 12 less than in Providence, and 4 deaths fewer in every 1,000 living; while the percentage of deaths to population is $\frac{28}{100}$ less. In each of the other cities named, in the above table, the difference is still greater in favour of the health of Philadelphia.

The returns, therefore, of deaths for 1859, present a very high standard of salubrity for our city, equal to, if not surpassing, that of the most healthy city in the world.

Nor should I be surprised, if the correctness of our returns made to the health office of the mortality of the city be questioned by sanitarians abroad. In order to meet this distrust, I have instituted a rigid scrutiny into the manner by which the weekly returns of deaths are made at the health office, and the sources from whence they are received, but am unable to discover any defect upon which I could build a reasonable doubt that they do not comprehend all the interments that are made during the year.

The unusual health of our city during the year, has been the subject of frequent discussion among the fellows of this College, as well as by the papers of the day; and I feel assured that every practising physician is competent to furnish a commentary, illustrative of the fact that there has prevailed an unusual scarcity of cases of disease.

No epidemic has visited us, nor have our usual endemics prevailed to any extent. In many instances the diseases of the different seasons have been less frequent and more mild in their character.

During the fall and winter months and in the early spring, croup, and inflammation of the bronchia and lungs among children were the prevailing diseases. With croup, there was observed the steady increase in the number of fatal cases which I have alluded to in several former reports. In inflammation of the lungs, the deaths did not reach the number recorded for 1858. There was nothing, however, unusual in any of the winter diseases, beyond their general characteristics. Scarlet fever, which had prevailed to a great extent for several previous years, was still among us when the year opened. For the most part, the cases which occurred did not present a highly malignant type of fever, and yielded readily to a mild treatment. The deaths, however, were nearly equal to those of the previous year, and amounted to 232.

I cannot omit to mention in this place the appearance of a few cases of diphtheria, or malignant or putrid sore throat. Towards the latter end of the year these cases increased in number; several of them were fatal, but

whether they were certified to and classed in the record with sore throat, scarlet fever, or croup, I am unable to determine, as I find no death recorded from diphtheria. I did not witness a single malignant case of this fatal disease in my own practice, but in a number of cases of sore throat, accompanied with high fever, vomiting, frequent pulse and red tongue, which came under my care, I observed a remarkable tendency to congestion of the mucous tissue of the fauces of a dark livid hue, to the exudation of a whitish plastic lymph and minute points of ulceration. These cases were accompanied with great debility of the system. They were evidently characteristic of the epidemic of diphtheria, but in a mild form, as none proved fatal.

None of these cases were in any manner involved with scarlet fever, and in one instance the patient had passed through that disease a few months previously thereto. Nor did any of them resemble croup.

How nearly this malignant form of disease which has prevailed in several of our large cities and towns, to an extent sufficient to create alarm, is identified with scarlet fever, or with membranous croup, or whether it derives its origin from a distinct and peculiar poison, becomes an important question for solution. The indications are, that ere long we may have to combat this formidable enemy, which, as yet, particularly in its malignant type, has resisted, in a majority of instances, the most watchful and judicious treatment.

The invasion of cholera infantum took place about the usual period of the summer, and was most prevalent in July. Its ravages by death, however, were not so great by 254, as during the previous year. The number of deaths recorded were 408, a less mortality, compared to population or deaths from all diseases, than has occurred for many years. The cause of this remarkable diminution in the deaths from this infantile endemic may be ascribed, in part, to the favourable condition of the summer heat, which was 2 degrees below the average for the previous eight years, to the absence of a choleraic influence, and the increased facilities for hygienic protection afforded that class of the population who are deprived of the advantage of a pure atmosphere in their unventilated houses. They are now enabled by cheap rides, in easy and commodious city railroad cars, in almost every direction, to reach within a few minutes the rural environs of our city, where, with their feeble, sickly and emaciated offspring, they can enjoy the luxury of inhaling the pure, cool and invigorating air of the country.

Of the entire number of deaths for the year, 5,157 were males, and 4,585 were females. This proportion shows an excess of deaths in the males of 12.52 per cent., and is in keeping with the records of our mortality of sexes for a number of years past.

Stillborn children foot up 658 during the year. These, with the deaths from casualties of various kinds, and from debility and old age, amounting in all to 1,709, should be deducted from the total mortality, in order to ascertain more correctly the deaths from morbific causes. By this arrange-

ment I find that only 8,033 deaths, or one in every 76.5 of the population, were caused by the effect of diseases, thus presenting our sanitary position in a still more favourable light.

Of all the deaths, including stillborn, 2,969 perished before the expiration of the first year of life. Between the ages of one and two, 927 died; between two and five, 815; between five and ten years, 294. It will be seen, therefore, that 5,005, or 51.37 per cent., more than half of the annual mortality, occurred before the tenth year of life. This large proportion of infant mortality in our city, presents a melancholy picture of the continued prevalence of every variety of sanitary evils, not exempting swill milk. These, together with the mismanagement of children on the part of parents and others, who have the oversight of this interesting portion of our population, are the prominent causes for the fatality among them. In several former reports, I have called the attention of the fellows of the College to this single item of our annual mortality. I would again impress upon them the importance, nay the sacred duty, not only of arousing the public conservators of health to the necessity for the institution of a sanitary medical police, but the enforcement of ordinances drafted in accordance with the laws of health and life. Nor is it of less importance, through a special committee, to make such inquiries and investigations, as will lead to a knowledge of the true causes of the alarming waste of infantile life. This course of action may lead to measures of sanitary reform, that will prove influential not only in removing the various preventable causes of disease that exist in our midst, but in diminishing the fearfully increasing amount of infant mortality.

The deaths under twenty years were 5,415, while those above that age were 4,327. This division gives 55.58 per cent. of the mortality to children, or those under twenty, that period constituting the division line between adults and children. In 1858, the deaths in New York city, of those under twenty, were 67.70 per cent. of the whole number, an excess of 14.32 per cent. over those of our own city for the same year and the like period.

The highest number of deaths recorded in any one decennial period, beyond those in the first ten years of life, will be found between twenty and thirty years, amounting to 988. From this period, the deaths gradually decreased, in each succeeding decade, up to between eighty and ninety, when they were 227. Beyond that age, the number of deaths reached but 37, and of these, only six were centennarians.

The greatest mortality in any month was in August, viz., 1,037; while the least, 608, was in the following month of September. July, however, presented the highest rate of mortality among children, or those under 20 years, to wit, 700.

I have prepared the following table to illustrate, at a glance, the diseases which have been so fruitful during the year in swelling the amount of mortality among children, together with the number of deaths from each source, and the monthly periods when they proved most fatal.

Mortality among Children.

DISEASES.	Annual total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	HIGHEST MONTH.	LOWEST MONTHS.
Congestion of the brain . .	131	6	9	13	6	7	14	19	18	8	10	11	10	July	January and April.
Cholera infantum . . .	408	...	...	...	6	10	63	194	104	23	7	1	...	July	Jan., Feb., Mar., and Dec.
Convulsions	488	37	57	51	27	42	52	43	52	26	25	46	30	February	October.
Croup	311	34	28	30	27	21	10	16	16	12	28	53	36	November	June.
Debility	253	24	16	30	15	18	27	33	31	14	16	10	19	July	November.
Dropsy of the brain . . .	230	16	20	19	20	21	29	35	25	12	10	10	13	July	October and November.
Fever, scarlet	232	11	28	28	15	13	25	8	15	5	16	29	39	December	September.
Marasmus	328	13	16	32	15	26	33	53	75	30	13	13	9	August	December.
Inflammation of the brain .	275	28	22	32	29	16	29	27	28	25	12	16	11	March	December.
" " lungs .	398	48	45	61	45	32	22	9	18	11	17	39	51	March	July.
Total	3054	217	241	296	205	206	304	437	382	166	154	228	218		
Stillborn	658	56	49	61	32	50	58	46	56	56	57	74	63	November	April.
	3712	273	290	357	237	256	362	483	438	222	211	302	281		

This table furnishes an account of 3,054 deaths. Of these, 2,396 are charged to only ten diseases, and 658 are recorded stillborn. Convulsions maintains its ascendency over all other diseases of infancy, in producing death. It numbers 488, and exceeds cholera infantum by 80. The seasons of the year appear to exert very little influence upon the deaths from convulsions, as there is a striking uniformity in the numbers for each month. Not so, however, with cholera infantum and croup. In the former, there is a great disparity, as during the three winter, and the first spring months, there was not a single death recorded; while in the month of June there were 63; in July, 194; in August, 104 deaths. Croup was most fatal in November, when there were 53 deaths, and least fatal in June, when there were only 10 deaths. The winter months also proved more fatal than the spring or summer.

Marasmus was the cause of 328 deaths inserted in this table. The summer months exhibit a large increase over all others. The highest rate was in August, 75, and the lowest in December, 9.

Inflammation of the lungs, which stands quite prominent, furnished 398 deaths, and was most fatal during the winter and spring months.

The stillborn, numbering 658, which I have added to this table, and are equal to about 7 per cent. of all the deaths, present less than the usual uniformity of numbers for each month. The highest rate of these deaths was in November, viz., 74, and the lowest 32, in April. The months of January, June, August, September, and October, however, varied only between 56 and 58 in each month.

Table II. The deaths from diseases of the lungs and air-passages are given in this group, and amount to 2,933, or 32.17 per cent. of all the deaths for the year, exclusive of stillborn. This percentage shows higher than in 1858, when it was only 30.43 per cent., for the reason that the annual aggregate mortality is less than in 1858.

The most striking feature in this table is the falling off of the deaths from hooping-cough, as compared with the previous year, when they rated 153. This year, they were only 52, a decrease of 101, equal to 66 per cent.

Croup, which I have already alluded to, is still on the increase. The first and last quarters of the year, which include the winter months, present the highest mortality.

Asthma, congestion of the lungs, dropsy of the chest, inflammation of the bronchia and pleura, show a small increase of deaths over the previous year, whereas, the deaths from consumption of the lungs, and inflammation of the lungs, have declined.

Table III. contains a statistical enumeration of the deaths from consumption of the lungs, amounting to 1,505. It furnishes also the periods

of the year, and the time of life, when the disease has proved most fatal, together with a designation of the sexes, and the monthly and quarterly mortality.

The deaths from consumption this year are 9 per cent. less than they were in 1858. Another change will be discovered, in regard to the proportion of sexes; as, contrary to the usual rate, the excess in this instance is on the side of males, equal to 7.57 per cent. above those in females.

This disease is productive of a large amount of our annual mortality. The fatal cases are equal to 61 per cent. of all the deaths from the diseases of the lungs and air-passages; and of the annual aggregate mortality, they form nearly 19 per cent. To the population, they are as 1 to every 415.29, or 2.40 in every 1,000.

The heaviest mortality was between the ages of 20 and 30, while the month of November records the greatest number of deaths, viz., 156. The fewest deaths, 95, occurred in September. The first quarter of the year contributed the largest number of deaths.

Table IV. records the deaths from diseases appertaining to the nervous system, amounting to 1,843, or 20.28 per cent. of the entire mortality.

The highest mortality from any one disease in this table is claimed by convulsions, which amounts to 520, or 28.22 per cent. of all the deaths in this group.

The diseases coming under this head not being influenced by the seasons to the same extent as many of those are in other classes, the uniformity in the number of deaths occurring from month to month, and even from year to year, is but little affected, unless it may be in the instance of coup de soleil, which is an exception. An examination of the record of deaths for several years back, will present only a slight disparity in the numbers for the different quarters of each year.

Table V. The diseases belonging to this class, the organs of nutrition, return a mortality of only 1,670, or 18.38 per cent. of the annual deaths. The falling off of the deaths in this group from those of last year, is equal to about 4 per cent. The disproportion is caused principally by the less number of deaths from cholera infantum, dysentery, and marasmus. These three diseases alone make a difference of 462 deaths in the table, when compared with those of the previous year. The diminished number of deaths from cholera infantum, which has always rated next highest to consumption in these tables, is strikingly perceptible, to which circumstance I have already alluded.

The diseases noticed in this table are chiefly those which happen during the warm seasons of the year; hence it will be found that the 2d and 3d quarters furnish the largest proportion of deaths, equal to 148.62 per cent. over the 1st and 4th quarters.

The large increase of deaths from inflammation of the liver, is worthy of notice. The average of deaths from this disease for the three previous years was $31\frac{1}{3}$; this year, 1859, they were 92, nearly equal to the number for the three former years. I am not prepared to assign any cause for this increase.

Table VI. Those who examine this table of deaths from diseases of the urino-genital organs, will be struck with the comparative increase over those of the previous year. The number in 1858 was 63. In 1859, they are set down at 143, a difference of eighty. A little explanation will place this disparity in its true light. In 1858, all the deaths from cancer of the different organs were placed in the health office reports under one general head, cancer; hence the deaths from cancer of the uterus were not found in this table. This year the deaths from cancer having been distinguished according to their location, increases this table 52. The only real increase, therefore, over the deaths of 1858, is to be found in puerperal fever and disease of the kidneys, amounting to 36.

There has been a perceptible increase of deaths from puerperal fever. They now number 51, or fifteen over those for 1858. The highest number for any period occurred in the first quarter, the coldest season of the year. The proportion of deaths in this table to the entire mortality, was 1.75 per cent.

Table VII. Like the mortality from fevers during 1858, so this table, the present year, exemplifies the healthy condition of our city, when placed in contrast with those of former years, and with the deaths from fevers, in other large cities. The proportion, to the mortality from all causes, exclusive of stillborn, is 1 in every 13, or 7.16 per cent. It rates about alike with that of the former year. The slight increase of percentage is owing to decrease in the general mortality for the year.

The deaths from scarlet fever in this table give nearly the like number as in 1858, viz. 232. The epidemic influence still lingers with us, and according to the returns for the last quarter, may be on the increase.

I have omitted the table for measles, smallpox, and varioloid. The deaths from measles amounted to 51. Of these, 40 occurred in the two first quarters of the year, ten in the third, and only one in the fourth quarter. By this, it would appear that our city at this time is almost free from measles.

Of deaths from smallpox, but two are found during the entire year, and none from varioloid.

I cannot refrain from expressing the conviction, judging from the evidence afforded by the statistics of former years, that ere long our city may suffer from an epidemic influence, which shall inflict upon us that most loathsome of all diseases—smallpox. Adopting this opinion, I regret to

add that we are by no means in a proper state of protection, so far as relates to prophylactic measures, to contend with this dangerous enemy to life, from the fact that, for several years, public vaccination has been fearfully neglected, through the supineness of our public authorities, in declining to appoint collectors of cases for vaccination, as in former years. As a consequence of this omission, only 195 persons were vaccinated under this ordinance during the year. No censure whatever can be laid upon the medical gentlemen appointed by Councils as vaccine physicians. Their duty is to vaccinate, gratuitously, all persons who call upon them at their offices, which duty they have faithfully performed. The imperfection exists in the want of collectors of cases, who shall make house to house visits in the several wards, and gather the names and residences of the hundreds of children, and even adults, who are unprotected by vaccination, and who, in the event of an epidemic of smallpox, will fall victims to its ravages. For the past six years, but few of those for whom this humane ordinance is intended, have undergone the process of protection, when compared with the many who received its benefit in previous years, under the ordinance recognizing collectors of vaccine cases. On more than one occasion, the Board of Health has called the attention of Councils to the importance of an improved system of vaccination, but without any favourable response. The medical profession has spoken its mind freely on this subject, and in the event of an epidemic of smallpox visiting our city in its present unprotected state—so far as public vaccination is concerned—let the censure fall where it properly belongs.

Table VIII. furnishes an analytical view of the mortality for the year, arranged in numerical order. The number of stillborn, with the sexes, for each month. The monthly deaths, with the sexes, at fifteen different periods of life. The number of boys and girls, or those under 20, that have died, are all enumerated. A calculation of percentages of deaths for each month to the whole number of deaths is given, together with the percentages for the several designated periods of life. This table will be found useful in the preparation of comparative tables.

Births.—For several years previous to the organization of the present board of health, no systematic effort had been made to secure a record of the births in our city. Owing to this delinquency, the reports sent to the health office were so limited in number, as to render their publication useless. This circumstance is to be regretted, as it leaves a blank in the birth statistics of our city, which can never be filled otherwise than by inference.

The following table gives the number of births in our city for 1859, as far as they have been returned at the health office.

1859.	Males.	Females.	Total.
January	684	633	1317
February	597	577	1174
March	621	563	1184
April	613	511	1124
May	632	575	1207
June	551	575	1126
July	635	589	1224
August	644	605	1249
September	686	580	1266
October	655	623	1278
November	639	622	1261
December	712	710	1422
Total	7669	7163	14,832

An examination of the above figures, shows an aggregate of 14,832 births. A majority of these are males, amounting to 7669 or 51.70 per cent. of the whole number, while the females numbered 7163 or 48.29 per cent., showing a preponderance of male births for the year, equivalent to 3.41 per cent. This excess of boy births, in the proportion of the sexes, according to the experience of Villermè, Emerson, and other statisticians, indicates a favourable condition of the health, prosperity and vigor of a community. Hence it furnishes additional evidence of the good health of our city for the year.

The births are stated in this table for each month of the year. December appears to have been the most fruitful in births, yielding 1422; April the least so, furnishing only 1124; June gave only 1126. These returns demonstrate that March was the most prolific in conceptions, while August exhibited the least fecundity.

The ratio of births to population, according to these returns, gives 1 to every 42.13. In the city of Boston for 1858 it was, 1 to every 30.35 In the city of Providence for the same year, 1 to every 29.15.

From these comparative estimates, the inference is drawn, that our returns of births are not sufficiently accurate to warrant any reliable statement, as to the proportion of births to population. For no reason can be adduced why the producing part of our community should not be equal to that of England, where, according to the reports of the Registrar-General, there is 1 to every 31 of the population. Moreover, as it is undoubtedly true, that large cities furnish a still greater proportion than States or countries at large; therefore, based upon this evidence, our birth returns should amount to about 20,000.

When compared with the deaths, the returns of births present an excess of 4913; a gain to the population, equal to 50 per cent. of the mortality.

MEMOIR

OF

THOMAS H. YARDLEY, M. D.

READ BY DR. LITTELL BEFORE THE COLLEGE OF PHYSICIANS, FEBRUARY 1, 1860.

It has been well remarked by a writer who has trodden with tabret and harp the cycle of England's Ecclesiastical Year,[1] that

> The trivial round, the common task,
> Will furnish all we ought to ask;
> Room to deny ourselves; a road
> To bring us, daily, nearer God;"

but though a life thus spent in the humble and unobtrusive performance of duty, may best promote the purposes of our earthly probation; yet, however useful in itself, or instructive by its example, it seldom affords much material for the pen of the Biographer. Not that, if the record be that of a physician, it might not be made to abound in scenes of absorbing interest; but these are matters of private concernment, griefs with which "the stranger intermeddleth not," and from which, for obvious reasons, the veil of professional confidence cannot be withdrawn. Happily for mankind, it is not in remarkable events that the peace of society, or the welfare of individuals consists. It is the daily occurrences, the little things of life, which compose the sum of human felicity. The true friends of our race, the individuals who bequeath examples for general imitation, are those who qualify themselves for the stations which Providence has assigned them, and quietly, resolutely, and conscientiously devote themselves to the discharge of the obligations which they involve:—

> "Men whose delight is where their duty leads
> Or fixes them; whose least distinguished day
> Shines with some portion of that heavenly lustre
> Which makes the Sabbath lovely in the sight
> Of blessed angels pitying human cares."

In addressing myself to the sad, yet grateful task imposed upon me by the College, of preparing for preservation in their Transactions, a brief

[1] Keble's Christian Year.

memorial of our departed brother, it will be readily understood, therefore, that I can have nothing of peculiar interest, or of stirring incident to relate. The difficulty is increased by the circumstance that he was neither an author, nor a teacher of medicine; nor distinguished, indeed, by anything particularly remarkable, either in speculation or in practice. In the light in which we are chiefly to regard him here, he was merely the laborious physician, seeking the approbation of his own conscience in the faithful discharge of professional duty, and ambitious of reputation only in lessening the amount of human suffering. He was, moreover, a man of modest worth and unassuming demeanor, whose similitudes might be drawn from the gentler objects of nature rather than the bold and striking. The evening sun, shorn of his intenser beams, and sinking to his rest "more lovely ere his race be run;" the moon shedding her mild radiance and gladdening every object on which it reposes; the noiseless stream, fertilizing the soil through which it flows, and betraying its existence by the verdure which it creates, are fitter emblems of his mind, than the morning luminary "rejoicing as a giant to run his course," the dazzling meteor, or the impetuous torrent.

The narrative of his life, therefore, must be the oft-repeated story of gradual advancement—happily in the present instance without some of the discouragements which are too frequently its attendants—from small beginnings to deserved eminence and success; and if I shall succeed in so portraying his character as to keep alive in our own breasts the recollection of his many excellencies, or to inspire those who may come after us, with a desire to imitate his virtues, I shall not altogether have failed in the accomplishment of my purpose.

Thomas Howe, the third son of Thomas and Susannah Yardley, was born in Wakefield, Bucks County, Pennsylvania, in December, 1800; and at the time of his decease, which took place on the 4th of January, had consequently just entered upon his sixtieth year.

His remote ancestor, William Yardley, who was a native of Staffordshire, England, emigrated to this country with William Penn in 1682, and was an active member of the first colonial assembly which met under the Proprietary government. He purchased a tract of land in Lower Wakefield, on the Delaware River, near the present village of Yardleyville, which perpetuates the name; and a part of the original purchase remained in the family so late as 1854, a period of 172 years. His father, who was a respectable farmer, with ten children, of whom five were girls, had destined his boys to the same occupation; but this not satisfying the aspirations of his son Thomas, he resolved, after completing his education at Burlington, in the school of the once celebrated teachers, John and Samuel Gummere, to enter upon a more congenial pursuit; and accordingly having, with a proper feeling of independence, secured the necessary means by becoming in his turn an instructor, he entered as a student of medicine the office of the late Dr. Joseph Parrish; and having finished his curriculum under his

direction, graduated at the University of Pennsylvania in the year 1825, taking for his thesis the theme, Medicina Mentis.

He was twice married. In 1830 to Sarah W., daughter of the late Jacob Johnson, by whom he had three children, two of whom—a son and daughter—are still living; and the former, who gives cheering promise of future usefulness, is preparing himself for the ministry of the Episcopal Church. She died in the fall of 1842, and in December, 1850, he united himself to Mary L., daughter of James Martin, by whom also he had three children, who, with their widowed mother, survive to mourn his departure.

His immediate family, and the families with which he was connected by marriage, were all members of the Society of Friends, and his own views of religious truth—which were held with becoming modesty and reserve—were in accordance with the tenets in which he had been educated. The circumstance just alluded to, of the application by the son, with the father's consent, for Holy Orders in the Church, may be adduced as proof of his freedom from bigotry and intolerance.

Dr. Yardley located himself, immediately after receiving his diploma, in the northern part of the city, and, devoting himself assiduously to his profession, soon acquired an extensive practice. He never allowed himself any recreation which carried him abroad, and was seldom absent from his office except on business connected with it. The neighborhood, though not wanting in wealthy inhabitants, contained also a large proportion of people in restricted, or indigent circumstances, and these at all times shared largely in his philanthropic ministrations. Impressed with a high sense of the benevolent character of his profession, instead of regarding it as a mere mercenary employment, his services were liberally given to the poor. As a medical man he recognized no difference of condition. The lowliest and rudest shared his attention equally with the most elevated and refined; the meanest among them was "a prime minister in his eyes;"[1] and not only was no call made by them ever declined, "no summons mocked by chill delay," but he busied himself also in providing public means for their more general and permanent relief. He was a life contributor, and for several years one of the attending physicians to the Northern Dispensary, the history and statistics of which he wrote, and served as a consulting physician in one of its departments to the day of his death. He strongly advocated the establishment of a free bathing-house for females in connection with this institution; but not receiving the countenance which he expected, he changed his plan, and, through his instrumentality chiefly, a private association was formed for the same purpose; and continued for some time in successful operation, greatly to the health and comfort of those for whom it was intended.

[1] "Doctor," said a Premier of France on one occasion to his attending surgeon, Dr. Dubois, "don't treat me as you treat those poor wretches in the hospital." "My Lord," replied the Doctor, "every one of those poor wretches, as your Eminence is pleased to call them, is a Prime Minister in my eyes."

His next, and only removal, was, after his second marriage, to a more central situation in Arch Street, where, still retaining many of his former patients, he acquired others by whom his services were more adequately remunerated; and at the time of his decease he was in the full career of successful and lucrative occupation, possessing the respect of all who knew him, happy in his domestic and social relations, and anticipating years of future prosperity and usefulness.

He was an excellent practitioner, and enjoyed in a high degree the esteem of his professional brethren. His theoretical views were generally sound, and the practice to which they led judicious and conservative. Though in matters fraught with such momentous importance as life and health, he was not forward to lead the way in innovation, preferring to abide by the principles which he had been taught in the school of his revered preceptor, Dr. Parrish—clarum et venerabile nomen—rather than run hastily into new modes of thought and action, yet when others, whose opportunities entitled them to speak authoritatively, had expressed an opinion respecting any particular remedy, or mode of treatment, he was not so wedded to preconceived notions as to refuse to subject it to the ordeal of his own experience. His mind had far more of a practical, than of a speculative bias, and he unhesitatingly appropriated whatever gave promise of utility and improvement. If he erred at all in this respect, it was in the facility with which, influenced by the laudable motive of alleviating the ills to which "flesh is heir," he sometimes yielded his own better judgment to the recommendations of men of inferior capacity, but greater pretension. This deference, however, which had its origin in the modesty of his nature, did not lead him to persevere long in any practice which his own observation did not sanction.

He had great faith in the remedial power of medicine, loved his profession, cultivated it with diligence, and maintained on all occasions its dignity and respectability. Confident and hopeful, he knew that Truth would ultimately triumph over Error, and was not discouraged, therefore, by the prevalence of ignorance, charlatanry and imposture, which so discreditably signalize our age.

Absorbed in the active duties of professional life almost from its very commencement, he was unable to give much attention to literary composition; and a few papers, chiefly narratives of cases published in the medical periodicals of the day, are nearly all that remain of his production. The reading even of these he devolved, with characteristic diffidence, whenever practicable, on others.

From time thus engrossed it might be supposed that little leisure could be drawn for study; but amidst his numerous and distracting engagements he carefully improved what opportunities he could find, furnished his library with the works of the best authors as they issued from the press, and though he preferred no claim to the title of a learned physician, managed to keep even pace with the progress of professional knowledge.

The Journals of the several medical societies to which he belonged contain frequent mention of his name, and show that he was no inactive associate. In 1849 he became a member of the Philadelphia County Medical Society—which succeeded the old Philadelphia Medical Society, of which he was also a member—and in 1857 was chosen one of its vice-presidents. He bore a prominent part in the proceedings of this body, and earnestly endeavored to promote the legitimate objects of its establishment. He was usually one of the delegates elected by the Society to represent it in the State institution, was repeatedly sent as a delegate to the National Medical Association, and in both acquitted himself creditably of the duties which devolved upon him. The Transactions of the Society last mentioned, vol. v., 1852, contain a minority report from his pen on change of representation, a subject in which, in its relation to both institutions, he was much interested.

At a meeting of the State Medical Society held at Hollidaysburg, in May, 1855, he was elected the Corresponding Secretary of that association; and soon after issued, in his official capacity, a well-written circular to the principal physicians in those portions of the State where no county medical society existed, urging upon them the importance of making such organizations without delay, and thus of completing the representation of the Profession.

In January, 1852, he was admitted to the fellowship of this College.

His intercourse with his professional brethren was uniformly honorable and exemplary. He treated every one with courtesy and kindness, and was always ready to grant any request, or render his assistance in every emergency. He affected no superiority of skill, and was above all those petty artifices so often employed by designing and unprincipled men to captivate the attention and gain the plaudits of the ignorant. Strictly observant of the code of professional ethics, which is merely the application of the golden rule, of doing to others, as, under like circumstances, we would have them do to us, his conduct was uniformly fair, manly, and upright. No one ever met him in consultation without feeling that he was in the presence of a true and guileless man, who would honestly aid him by his counsel, and share his responsibilities without regard to any personal consideration. It was a pleasure to meet him on these, as well as upon other occasions; and even in the streets, his smile of recognition had in it a warmth and sincerity, which made one feel happier for the passing salutation.

Few physicians have enjoyed more entirely the affection and confidence of their patients, and this was owing as well to his cheerful and hope-inspiring deportment, as to the conviction that all the resources of art would be employed for their relief. The interest which he manifested in the welfare of the sick, his sympathy in their sufferings, and his unremitting attention, combined with his serenity of temper, kindness of heart, and transparent honesty of purpose, could hardly fail to inspire them in turn

with sentiments of gratitude and attachment. To the depth and sincerity of these feelings, the tearful eyes of many who thronged his mansion on the day of his funeral, bore honorable and touching witness.

The mental and moral characteristics of Dr. Yardley are too apparent, from what has been already said, to require any formal analysis. The lines had fallen to him in pleasant places, and his cup of earthly bliss might be said to be full to overflowing; but though in these respects—the necessary consequences of his own good conduct and well-directed industry—he was favored beyond the common lot of man, the happiness which he enjoyed was the result of his own genial temperament, rather than of the external circumstances by which he was surrounded. With mild affections, simple habits, and plain but agreeable manners, nature—prodigal in her gentler endowments—had given to him also a peaceful and contented disposition, which, while it found its best resources within itself, and shrank from contention even when his own rights were involved, enabled him to bear with equanimity the trials inseparable from existence, and sought their appropriate sphere and fitting reward in the tranquillity and retirement of domestic life. He may be regarded as belonging to a class of men more substantial and useful, than specious and brilliant,—the men of sound sense, patient industry, and high-toned principle, who form at once the delight of the social circle, and contribute largely to the public weal. The Rev. Mr. Kingsley, in a lecture recently delivered on the Rationale of Health, is reported to have said, "That if he were able to do his duty, as he saw not only the average, but the majority, of medical men doing theirs, he would be a happier man than he then was." The compliment is well deserved, and, coming from such a source, should be gratefully acknowledged; but it may be doubted, whether, with all his observation, he has any proper apprehension of the amount of labor and self-sacrifice involved in their arduous and generally ill-requited profession. Who, indeed, can estimate the good which accrues to the State from having in almost every village and neighborhood one or more educated men, trained with especial reference to the relief of the sick, persevering in their mission of mercy through toil and discouragement, by night and by day, braving exposure to contagion and weather, submitting to every privation, enduring every fatigue, and daily exerting all their faculties for the benefit of their fellow-men; and this, too, always with inadequate, and often with no remuneration. Persons like these, however, whatever may be their walk of life, are not ordinarily those who win the applause of mankind. The world knows nothing of its greatest benefactors. It cannot pause in its selfish career to do more than cast a casual glance at a few of the more aspiring among their fellows, or heap its ephemeral honors upon the head of some popular idol. The real heroes in the strife, those whose moral courage and self-devotion justly entitle them to its gratitude and admiration, are too frequently neglected while living, and forgotten when dead.

I had written out my own impressions of our late friend, finished the sketch as far as I was able to do, in the absence of some promised intelligence, and was awaiting the meeting of the College to offer my humble tribute to his memory, when I received from different sources two interesting communications; extracts from which, though from the similar view taken by the writers, involving perhaps some repetition, may be not inappropriately introduced in this place.

Dr. Wood was one of the preceptors of Dr. Yardley, had attended him during his last and several previous illnesses, and from the friendly relations which had always existed between them, was better qualified than most other persons to form a right conception of his character. To him, therefore, I addressed a note, asking for such information as it might be in his power to afford; and I record his testimony—kindly and courteously given, notwithstanding the present urgency of his engagements—with great pleasure; as well from the confirmation which it lends to the estimate I had already expressed, as because, while *laudari a viro laudato*, is a happiness to which no one should be insensible, it would have especially gratified the feelings and satisfied the ambition of our departed fellow.

PHILADELPHIA, January 21, 1860.

MY DEAR DOCTOR:—

I take pleasure in complying with your request that I would communicate to you some of my recollections of the life and character of our common friend, the late Dr. Yardley. From the time when he entered, as a pupil, the office of the late Dr. Joseph Parrish, to the period of his decease, we were often associated both professionally and socially; during his years of pupilage, I aided in his instruction; in his after life was occasionally his medical adviser; and, throughout his professional career, was frequently called by him into consultation; so that there are, I presume, few medical men, who have had better opportunities of forming a just estimate of his character and qualifications.

Steady, industrious, and conscientious as a student, he carried the same qualities with him into his subsequent life as a medical practitioner. With an excellent judgment, he was yet modest in his estimate of himself, and entirely free from that overweening self-confidence, which declines aid in difficulties, and is ever disposed to bear alone the burden of responsibility. No man was more willing to listen to reason, more open to conviction against preconceived opinion, or more willing to yield in action when his judgment was convinced. He was amiable in his feelings, courteous in his manner, and adhesive in his attachments; so that he made many friends and lost few, and among his patients was in a high degree both esteemed and beloved. They who were present at his funeral may have observed the evidences of deep attachment which were there presented; how sadly and lingeringly his old patients hung about his coffin, and how many tears were shed as they gazed lovingly and mournfully upon his remains. As he was temperate both in his feelings and opinions, and in his expression of them, he seldom came into conflict with the self-love of others, though never subserviently yielding his conscientious convictions; so that he enjoyed at once the goodwill and the respect of his associates. Correct and honor-

able in his sentiments, upright in his dealings, and conscientiously scrupulous in the discharge of duty; few men have passed through life more blamelessly yet usefully than he; and not only his family and patients, but the profession to which he was attached, and the public generally, have occasion to regret his premature loss.

While he was yet a young practitioner, I attended him in an attack of external inflammatory gout, and have reason to believe that he afterwards suffered occasionally with slighter attacks of the same kind; but he subsequently told me that he adopted the use of the cold bath, and since then had succeeded in keeping off the paroxysms. This was, perhaps, unfortunate; as it probably gave a direction of the morbid tendencies inward towards the heart; but the ability thereby gained to attend to his professional duties uninterruptedly, was probably with him a paramount consideration. However this may be, he was certainly laboring under serious cardiac disease, even when in apparently good health; for, in walking home with him from evening engagements, I have known him, if induced to move somewhat more rapidly than usual, to be attacked with a paroxysm of severe dyspnœa, which made itself obvious to the most superficial observation.

You are fully acquainted, I presume, with the circumstances of the very violent attack of gouty rheumatism, involving in its course both pericarditis and pleuritis, under which he suffered a few months before his death. I have little doubt that the loud murmur, replacing the first sound of the heart, which was then so obvious, was the indication of a long previously existing disease of the cardiac valves. Though he recovered from this attack, and had again entered into the full career of practice, deeming himself as well as he had been for years, I was not surprised by the news of his sudden death; it was what every one acquainted with his real condition must have considered a very probable occurrence. Had he spared himself, he might possibly have added years to his life; but, as sudden death, amidst usefulness, is preferable to a slow wearing out with a gradually increasing disease, incapacitating for usefulness to others, and rendering life burdensome, it was probably best for him to die as he did; and his friends have scarcely the right, on their own account solely, to regret an issue so desirable for himself.

* * * * * * * *

Sincerely your friend,

GEO. B. WOOD.

Dr. S. Littell.

The other letter to which reference was made is from a female hand—the sister of the first Mrs. Yardley; and while it exhibits in pleasing colors the amiable light in which he was regarded by those who knew him most intimately, discloses at the same time the secret of his success.

"Eminently faithful and untiring in the performance of his extended professional duties, regardless of personal comfort or convenience, he still found time for the exercise of those gentle amenities of domestic life, which made him greatly beloved as a husband and father, and shed over his home a brightness which his sorrowing family now feel is gone forever. Uniformly kind and courteous in his disposition and manners, he was among

his large circle of patients at once the devoted physician and the genial and sympathizing friend; entering with so peculiar a tenderness into the feelings of the sufferer, that his *presence* alone seemed to carry with it a healing influence, and beside many a sick bed it will be long remembered and mourned for with no common sorrow. He had indeed become so domesticated, as it were, in the families of most of his patients, that many of them will feel his loss as that of one of their own household."

To most of Dr. Yardley's friends the existence of serious organic disease was unknown, and the fearful suddenness of his departure fell therefore with startling effect as well upon them as upon the whole community. To the unprofessional eye the approach of the Destroyer was unheralded by any of its customary intimations. The transition from active life and apparently vigorous health, to the "cold obstruction" of mortality, was almost instantaneous. There was no perceptible failure either of physical or mental power, no abatement of the kindly glow which ever animated his bosom; the smile of friendly greeting had hardly ceased to irradiate his countenance; his words of social converse still lingered on the ear; he was engaged in the actual discharge of professional duty, when, as in the instance of lowly worth immortalized by genius:—

> "——With no fiery, throbbing pain,
> No cold gradation of decay,
> Death broke at once the vital chain,
> And freed his soul the nearest way."

During the summer he had suffered from a severe and protracted attack of rheumatic gout, and the investigations of his physicians revealed what indeed to one of them was already known, organic disease of the heart. He recovered in some measure from his illness, again made his appearance in society, and had even resumed his customary avocations, but could hardly be said to have entirely regained his former energy and strength. It so happened that two physicians who had attended him with Dr. Wood during his sickness met him, at different times, on the morning of the day preceding his death, and cautioned him against any undue physical exertion. He was buoyant and hopeful, and replied on both occasions that he felt very well, though, laying his hand upon his heart, "all," he said to one of them, "was not quite right there." That evening he spent at a medical club of which he was a member, and seemed to display even more than his wonted hilarity. He returned to his home about eleven o'clock, and retired to rest. A few hours later he arose to answer a professional call, and, a carriage having been procured, hastily dressed, and accompanied the messenger. Becoming ill on the way, he requested to be driven back, and expired in a few minutes after reaching his house.

Such, gentlemen, is a brief and very imperfect delineation of the character of our late beloved friend and associate. In performing the duty assigned

me, I have endeavored to avoid the language of panegyric, and to draw a portraiture, the faithfulness of which, bearing the independent and concurring testimony of three witnesses—and the number might have been indefinitely increased—you could hardly fail to recognize. The very unobtrusiveness of its subject may perhaps have caused him to be undervalued by those of opposite traits who did not know him well; but now that he has gone from among us, we shall all regret that we did not appreciate and love him more. He has left behind few who surpassed him in those attractive qualities which conciliate the good-will and affection of others, and few, therefore, whose departure would be more generally lamented. We shall miss him everywhere—in our medical associations, in our social reunions, in our professional rounds—everywhere we shall miss his sunny smile and friendly grasp, and feel, in heaviness of heart, that we have sustained a loss which, to many of us, can hardly be repaired.

In accordance with the beautiful custom of the College thus to commemorate its deceased members, we gather around his recent grave, and while contemplating his useful and blameless life, take comfort and courage from the good example which he has bequeathed.—

"The memory of the Just survives in Heaven."

SUMMARY OF THE TRANSACTIONS

OF THE

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

FROM MARCH 7, 1860, TO OCTOBER 3, 1860, INCLUSIVE.

1860. *March 7. Rupture of the Uterus and Death from Hemorrhage in the Sixth Month of Pregnancy.*—Dr. CORSE exhibited a specimen of ruptured uterus, with its contents, and gave the following sketch of the case:—

I was called to see Mrs. B., æt. 28, about the middle of the day, in consequence of incessant vomiting and cramps in the abdomen, with great pain.

The patient was sitting in a chair near an open window, the weather being very warm. Her pulse was frequent and feeble, her tongue furred, and the surface of her body pale and covered with perspiration. She had occasionally indulged in the excessive use of alcoholic drink, and on this day had undertaken a promenade through the streets while under its influence, but was unable to accomplish it, and had a carriage called to take her home; soon after which the vomiting and cramps began. I was informed that she was near six months gone in pregnancy.

I prescribed remedies appropriate to the gastric irritation of the inebriate, and left her. The vomiting soon almost ceased, and the cramps diminished in frequency but rather increased in violence.

About seven o'clock in the evening I received a message to come in haste to her, and found her sitting in a chair, reclining in the arms of a female friend, in a state of insensibility, with her feet in a warm mustard bath, while another female friend was rubbing her legs. They supposed she had just fainted; we immediately laid her upon the side of the bed, and soon found life to be entirely extinct.

The corpse was placed in ice; and, after much persuasion, I obtained the privilege of making an autopsy.

On opening the abdomen, which was performed in the manner for delivery of a living child by gastrotomy, the whole anterior part was found covered by a thick clot of blood extending from one lumbar region to the other. Upon removing this I discovered the source of the hemorrhage in a rupture of the fundus of the uterus. The rupture was not a complete opening of two edges as if from ramollissement or other disease, but a separation of the uterine structure, tearing the ruptured margins into fibrous fringes. Section across the rupture transversely, through the substance of the uterus, did not show any disease whatever, and we are left to conjecture in regard to the predisposing cause. The direction of the rupture was transverse, its length about two inches, and the location in the posterior slope of the fundus, not low enough down to come in contact with the spinal column.

The implantation of the placenta was left lateral, the edge extending across the front; the funis was central.

The location of the lesion does not admit of the supposition that it arose from mechanical injury applied from without directly to that part of the body, nor from pressure against the sides of the vertebræ; and, in the

absence of any known liability, I have been led to surmise that it was due to some injury in one of her former pregnancies, this being the third. Of this her friends have no knowledge.

The true etiology of the accident admits of some difference of opinion. Some suppose violent contractions of the organ itself set up by the disorder of the general nervous system from drink as the exciting cause; others attribute the injury to the violent contractions of the abdominal muscles pressing upon the uterus during spasm; others think it due to the violent straining to vomit, while I suspect a fall upon her abdomen some time during the afternoon, after I left, to have been the immediate source of the disaster.

Intra-Uterine Hydrocephalus, and delivery accomplished by Craniotomy.—Dr. Corse also narrated the following:—

Mrs. H., pregnant of her fifth child, was taken in labour a little after midnight; pains being active, the os was soon dilated; examination per vaginam showed some hard body presenting of unusually large size. There being no urgent symptoms, labour was allowed to go on for about two hours; it was then supposed that she would not be able to deliver herself unaided, and I was called. I discovered an unusual size of the fontanelles and a great width of the sutures, but supposed that the shape of the head might be made, by aid of the long forceps, to undergo such change as would admit of its delivery by that means. The forceps were applied, and traction and compression made, as far as prudence would permit, without avail.

The most dependent part of the head at the centre of the pelvis was then perforated, and a large amount of fluid evacuated; the size of the head being thus reduced, it was extracted by means of forceps without much difficulty. The patient soon reacted, and no bad symptom arose from the operation.

The measurements of the head are as follows: From the occipital protuberance to the frontal protuberance, six and a half inches; from the occipital protuberance to the chin, six inches and a quarter; from one parietal protuberance to the other, five inches and three-quarters; from the posterior margin of the foramen magnum occipitis to the top of the head, five inches; from the top of the frontal bone to the chin, four inches and a half; from the chin to the nose, one inch.

April 4. Fungus Hæmatodes involving the Ovaries and Uterus at the age of twelve years.—Dr. Corse read the following note of a case of cancerous disease of the abdominal and pelvic viscera:—

Miss N., aged twelve years, rather small for her age, and slender, but generally healthy, presenting no signs of puberty, and apparently of rather retarded development, was taken with vague abdominal pains, like the colic of young persons; the pains were referred to one part, then another, of the abdomen. They were at first treated by gentle domestic remedies, such as carminatives, gentle stimulants, and laxatives. These remedies being unavailing, they sent for their family physician, who at once discovered an abdominal tumour, pronounced it extraordinary, and proposed a consultation, upon which I was called. When I first saw her, she had become somewhat thinner, but was yet going to school. Upon a careful examination, we found an irregular tumour in the hypogastrium which descended low down into the pelvis, and a per vaginam and per rectum touch showed the whole mass to be connected together. After summing up all the particulars, we agreed upon an unfavourable prognosis, and I expressed the opinion that the disease was fungus hæmatodes. The patient rapidly grew worse in spite

of tonics and alteratives. The abdomen became enormously distended, and fluctuation indicated the presence of a fluid. At length the diaphragm was so much pressed upon as to threaten immediate death by asphyxia. It was now thought proper to perform paracentesis abdominis, not as a cure, but as offering the only means of prolonging her life. A puncture was made with a trocar, in the median line, about two inches below the umbilicus, and a ropy sanguineous fluid slowly poured out, to the amount of about three pints. This fluid, subjected to microscopic examination, presented the peculiar cells said to indicate cancer. A marked amelioration of suffering followed the operation. The improvement, however, was of short duration; the abdomen quickly filled again, and the emaciation became extreme. Now vomiting came on; the matter ejected was black and resembling coffee grounds, and somewhat slimy. Soon after she became moribund, and expired on the night of the twenty-third day after I first saw her, and not more than five or six weeks after the first discovery of the disease.

On post-mortem examination the next day a quantity of sanguineous fluid, like that obtained by the previous operation, was first evacuated; then a soft pultaceous mass occupied the opening in the abdomen; and transverse incisions, laying open the whole abdomen in four flaps, showed the entire space filled with a soft cancer matter, even up between the stomach and diaphragm. The whole uterus and ovaries were in one soft mass, a part only of which would hold together to be removed. The once tolerably hard tumour had, as is usual with these growths, become quite soft with its increase in size. The greater part of the fungous growth was scooped out with a saucer; and we could then see that the walls of the abdomen were the seats of attachment for this matter; numerous tumours of all sizes, from that of a small shot to an inch or more in diameter, were found to be appended to the omentum and to the intestines and mesentery.

The whole substance removed was placed in a common bucket and weighed eleven pounds and a half. The fluid which escaped when the abdomen was opened, was supposed to be about two pounds, and the portion remaining in the abdomen about one pound, making in all *fourteen* pounds and a half.

I could not learn of any case of cancer ever having occurred before in the family.

June 6. *Feigned Muteism detected by a Strong and Prolonged Shock of Electricity.*—Dr. Addinell Hewson read the following history of a case of this:—

On the 16th day of July last (1859), a boy, apparently 14 years of age, was taken up in the street for begging, and committed to the House of Refuge by one of the aldermen of the city. At the time of his arrest he intimated to the officer that he was unable to speak. He could, however, evidently hear perfectly well. He wrote his name in the alderman's office as John Thompson, born in the State of New York, and gave his age as thirteen years. At the Refuge he also gave them to understand that he could not speak, and that he had lost the ability to articulate sounds in his early infancy. He was found to be able to read with facility anything that was written for him, and to write a quite distinct and well-formed hand himself. My colleague, Dr. Haskell, who was on duty at the time of his admission, examined him carefully, and desired that he should be closely watched, so as to detect, if possible, whether his mutisme was feigned or not. But from that date up to the close of February, a period of nearly eight months, during which he was constantly at work or at play with the other boys, no one ever heard him utter a single distinct word save once, shortly

after his admission, when he was locked in his room for some misdemeanor. He then called to a boy passing the door to know if the bell (for dinner) had rung. When accused immediately afterwards of having uttered these words, he admitted that he had, but indicated his inability to repeat the same or any other words, even under the threats of punishment. His whole conduct, subsequently, was so very consistent with his statements that those of the managers and officers, with whom I conversed in reference to his case, expressed themselves convinced of the boy being either absolutely unable or under a delusion as to his ability to talk. Indeed, one of the managers, who took a special interest in the boy, wrote me, in February, a letter in regard to him, requesting me to examine him carefully as to the possibility of any surgical operation being performed to restore his voice; and if such was not possible, that I should recommend his being sent to the Deaf and Dumb Asylum.

On my first interview with the boy I found him remarkably bright, with an expression of face quite characteristic of deaf mutes. He had a restlessness of eye, and remarkable quickness of manner. He communicated with me very freely with the single hand alphabet, which he stated he had learned whilst in the institution from one of the teachers. To my inquiry as to where he had learned to read and write so well, he gave me to understand that his mother had shown him the letters and taught him their meaning; that she had been very devoted and assiduous in her efforts to teach him. The teacher, from whom he stated he had learned the mute alphabet, assured me afterwards that he had never shown him the letters but twice.

His organs of speech, on careful examination, were found by me to be in a perfect state. His palate, tongue, fauces, and larynx were, as far as I could ascertain, perfectly natural, and to my frequent solicitations for him to utter a single word or letter, I got only a negative shake of the head. The boy evidently would not attempt to articulate a sound; and the fact that he had spoken once in the institution satisfied me that there was merely an unwillingness and not an inability to speak. I so expressed myself at the time, but stated then as there seemed such a strong conviction against the correctness of my conclusion that I should like to have more facts from him in relation to his case. In consequence of this wish of mine, one of the managers intimated to him that he wished him to write down his history, which he did in the following letter, which I will read; it will give some idea of the boy's intelligence:—

PHILADELPHIA, February 27, 1860.

Dear Sir: I now take the opportunity of writing the most of my history to you as you desired I should. I was born near New York, on the banks of the North River. My mother died when I was nearly ten years old. My father went to sea about one year before and was drowned, and the neighbours said that they thought it caused her death, for she slowly pined away from that day and died about one year after. I then went to live with my uncle, who was a sailor, and often got drunk, until one day, when I was nearly twelve years old, in the year 1858, and would not let me come home again. I then went to the farmers to get work, back of Brooklyn. I then went to farmer Mr. Dixon, who was kind to the poor, and often gave them money to help them along during the winter; but he had too many boys engaged to work for him during the summer; he, therefore, kindly put me under the care of one of the neighbour farmers whose name was Mr. Henderson. He was a kind but a harsh man in speech. I stayed with him until the first of July, and being of a rambling disposition I ran away from him with a dollar and a half in my pocket. I intended to visit the United States with it. I got as far as Buffalo with a half of a dollar. I then worked my way through Ohio, and thought I would like to visit Philadelphia;

so I started back to the way of Buffalo, and reached Philadelphia on the 15th of July, 1859, and come here on the 16th, and have been here ever since. Mr. McKeever can tell you the rest.

Respectfully yours,
JOHN THOMPSON.

To Mr. F.,
Manager of the House of Refuge.

At subsequent interviews I frequently tried to discover where, precisely, the persons were to be found to whom he referred in this letter, that I might communicate with them in regard to him, but my efforts were not successful. He said he did not know. I also made frequent attempts to get him to utter some sounds. At first he would not, then he gave utterance to a squeaking guttural sound. Then, by dint of perseverance, I got him to pronounce after me some labial sounds, such as *b*; some of the hissing sounds, such as *c* and *s*; but I never could get him to attempt the distinct lingual and guttural sounds by which I hoped he would betray himself. My conviction of his feigning was not in any ways, however, diminished by these interviews, although my researches in works on feigned diseases and medical jurisprudence were not rewarded by the discovery of a single case approaching to it; but, on the contrary, in the appendix of Mr. Wilde's work on the Ear (see p. 438, American edition), I there saw some cases of real mutisme so analogous to this one that I might well have had some misgivings as to the correctness of my opinion, especially with the strong testimony of the experienced officers of the institution in opposition to me.

The fact, however, that the boy had been heard to speak, and admitted that he had, was an insurmountable one, and two expedients presented themselves to me by which I thought I might be able to determine the truth. These were a strong shock of electricity and the intoxication of anæsthetic agents. I determined to try the electricity first, and accordingly on Saturday, the twentieth of March, with the assistance of my friend, Dr. Charles Lee, I administered a strong shock of the induced current from a large magneto-electrical apparatus by means of moistened conductors applied over the larynx. This application, I assured him, would bring his voice back, and I told him I would continue it until he made some effort to speak —until he uttered some articulate sound. He held out for some time, at least twenty minutes, although the application was evidently very painful. Finally, however, he cried in quite a suppressed tone, "Enough!" I then ceased; and feeling satisfied that the boy had been severely punished, I did not resume the application, although he would not utter another word.

On the following Monday I intended to repeat the battery, and, if it was not more successful, to put him under the influence of ether. When he saw me, however, on that day approaching, in the hall, with the battery and bottle of ether in hand, and in company with my colleague, Dr. Haskill, he came forward and said, in a slow measured cadence, and as though he articulated with difficulty, "How do you do, sir?" and I was informed that he had been gradually *recovering* his voice since I had used the battery on Saturday. He then reiterated, in answer to my inquiries, the facts contained in his letter of February 27, to the managers in reference to his history. Some of those circumstances I was confident were not correct, and I told him so; but he assured me he was telling the truth. He continued to *improve*, and in the course of a few days it was discovered that he could read poetry in a very creditable manner, and when questioned as to where he had learned to read with such good measure, he quickly answered that he had noticed the boys reading poetry at the Public School, near Brooklyn.

He now became quite a *lion*, and when I took him before the managers to induce them to resort to some coercion to get at the truth in his case, I found the most experienced of them under the conviction that I had either brought the voice to a child where it had never been developed, or that the child had been suffering under a hallucination that he could not speak. These impressions prevailed for six weeks, when one day the boy, of his own free will, gave the superintendent the following statement in his own handwriting:—

PHILADELPHIA HOUSE OF REFUGE, May 4, 1860.

Having feigned dumbness for about nine months, and made several erroneous statements while in this institution in regard to my history, I now truthfully declare that my object in doing so was to avoid the possibility of detection as a runaway from my parents, who reside in Alleghany City, opposite Pittsburg, on the Alleghany River, in Pennsylvania. I left Alleghany City on the 1st of July, 1859. I took with me a box partly full of lozenges, so as to make my parents believe I would sell them. When I got to the river I commenced to call the boys' attention by daring feats; at last I got a thick plank, and went out into the middle of the Alleghany River. I floated down the river on it, and the boys on the shore thought I was drowned, I suppose. I must now come back to Mr. S. S. East, he was a news dealer in Alleghany City. He always trusted me, and I now owe him two dollars and a half, which I would like to pay very much. He resides near the depôt. I then travelled partly through Ohio, and from Ohio to New York City. Stayed there two or three days and then came to Philadelphia, and on the next day, Monday, July 16, 1859, where I remain to this very day. I am not induced to make the above statement through fear of punishment, but that I may be relieved of a great uneasiness which I feel on account of practising such a deception.

CHARLES L. C., alias JOHN THOMPSON.

P. S.—I forgot to write that I had five brothers and two sisters, and father and mother both living in the city of Alleghany.

Names.—Mr. Isaac C., Mrs. Sebrina, David, John, me Charles, William, Albert, Jane, George, and Emma.

A letter was then written to his father, in Alleghany City, and the following answer received, showing the case to be one of the most extraordinary of feigning mutisme on record:—

ALLEGHANY CITY, May 14, 1860.

Mr. WM. KEEVER, *Dear Sir:* Yours of the 8th inst. I have received. I hasten to reply. We are truly thankful to you for this favour. 'Twas read with gladness by us all. Our son, Charles L. C., left us July 2, 1859. This is the first intelligence we have had of him. C. L. was not a very bad boy until he became acquainted with some very bad boys in this city. I think it was those who led him into mischief. He went to school until in April, 1859. The hard winds had injured our public school-house so much that it was torn down and a new school-house has been erected. When there was no school he was in the streets with these boys, who, we think, have led him off. Before he left he often talked of running away, as I have learned since. We think that the experience he has had in running away has learned him a lesson. We hope that it will have a good effect on him for time to come. We are now about removing some distance in the country to live on a farm. We think that our children (especially Charles L.) would not be so easily influenced wrongfully in the country as they would be in the city. I am a machinist. I am in the employ of the Pittsburg, Fort Wayne, and Chicago Railroad Company. My wages is sufficient to keep my family and but very little over. When I received the letter I at first thought that I would go immediately to Philadelphia to bring home the absent boy, but to do so would cost more than I could very well afford. Sir, you would oblige me very much, in my present circumstances, if you would send him on the Pennsylvania Central Railroad, in care of the conductor, to Pittsburg. Please to let me know what day and what hour you could send him and I will meet the con-

ductor in Pittsburg when the train arrives and pay his fare, &c. Please to answer soon, we are very anxious to hear from you again.

Yours, very respectfully,

Address, Alleghany City, Pa. ISAAC C.

Local Paralysis, with Softening of the Brain, supervening on Hypertrophy of the Heart.—Dr. Owen J. Wister read the following history of the case:—

J. R., a butcher, aged 62 years, of temperate habits, had been affected for several years with hypertrophy and valvular disease of the heart; but with the exception of some shortness of breath, on occasions of unusual exertion, suffered little from this cause, and was in possession of vigorous health.

About two years ago he had an attack of apoplexy, accompanied with paralysis of the left side, which, however, gradually disappeared, though some confusion of mind, when his attention was particularly engaged, especially with business accounts or other troublesome subjects, continued for several months; and the clearness and decision of his mind seemed never to have been completely regained. His motions were less active, and the integrity of the nervous system was slightly but perceptibly impaired.

His general health, however, was good after this attack, until January 3, 1860, with the exception of two or three very slight recurrences of dulness and confusion of mind, with pain and a sense of pressure about the head, which were readily removed.

On the night of January 2d last, having gone to bed in his usual health, he was seized with pains and a sense of weight at the epigastrium, accompanied by nausea and violent efforts to vomit. Large quantities of warm water were administered, which, however, were rejected almost unmixed with any other matter. The emetic and a stimulating enema having afforded considerable relief, he fell into a natural sleep, from which he awakened in a state of great excitement, complaining of pain in the head and raving in a wild, incoherent and almost inarticulate manner. He was entirely deaf, the optic axis greatly distorted, and the vision very dim; the left side, including the face, completely paralyzed; the pulse rapid, weak, and fluttering, and the extremities cold: coma speedily supervened, from which he was aroused by cups to the back of his head and neck, hot mustard foot-baths, and repeated enemata, the total inability to swallow preventing the administration of any remedy by the stomach.

Under this treatment, together with blisters to the occiput, the symptoms had all abated, at the end of the second week, with the exception of partial paralysis of the facial muscles and complete loss of the power of deglutition. Speech, though somewhat slow, was distinct; the deafness had moderated to slight dulness of hearing; the strabismus had disappeared, and vision was entirely restored.

At the end of the fourth week the left submaxillary gland became swollen, red, and painful, and finally suppurated, producing some relief from the heat and fulness of the head, which had been more or less complained of.

On the first day of March, nearly two months having elapsed, the power of swallowing suddenly returned. I say suddenly, because the attempt had been made every day since the 3d of January, and utterly without success.

During the suspension of deglutition life had been sustained by means of the stomach tube; and although the condition of the patient had varied very considerably as to strength and vitality, though the respiration was at times laboured and interrupted, the extremities cold and œdematous, the pulse scarcely perceptible, and the tongue dry and covered with dark brown

fur, but little emaciation had taken place, a proof that nutrition had been pretty well sustained.

With the power of swallowing came appetite; but though he was well fed, and the functions pretty well carried on, the abscess in the submaxillary gland did not heal, nor his strength or condition in any way improve.

Until the 14th of April little change was observed, and, with the exception of a distressing sense of heat, which was not appreciable on feeling the surface, there was but little suffering. During the evening of that day he had a severe chill, followed by great agitation and trembling, after which he gradually sank, and died about two o'clock the ensuing morning.

Autopsy.—The head only was examined. The dura mater was more than usually adherent, but otherwise normal, with the exception to be mentioned below. On opening it about three ounces of serum escaped. The arachnoid was normal, except that at the base of the brain it was somewhat opaque. The pia mater was thickened as if by inflammatory deposits over the outer side of the middle lobe of the left hemisphere. The cerebrum was firm, the convolutions being distinct and full except at the outer and lower part of the left middle lobe, where the gray matter was softened over a space of two square inches. The softening extended to the depth of one or two lines, the tissue being of a dirty white colour. The right lateral ventricle contained a small amount of serum; the left contained none. The choroid plexus was much enlarged on each side, and on the right to thrice or four times its natural size. The remaining central part of the brain and medulla oblongata were healthy. The left lobe of the cerebellum was softened throughout, so that on section it was partly diffluent, and the usual striated appearance was gone. The tissue was of a dirty white colour. The greatest degree of softening was on the under surface, extending from before backwards in a line the breadth of the thumb. The right lobe was softened in a less degree, though on the under surface, a line the width of the finger from before backwards was diffluent. The right lobe was atrophied decidedly, the left slightly. The tentorium over the central part of each lobe was reddened and had lost its polish. No undue redness of the brain, tissues, nor any evidence of a clot, recent or old, could be found.

Continued Success of Case of Imperforate Rectum operated on Nine Months previously.—Dr. E. Wallace stated that he was glad to report the uninterrupted good health of the infant upon whom he had operated by incision with the bistoury and subsequent slight dilatation with the little finger, in December of last year, and whose case he had described at some length to the College at the last January meeting.

The little patient had not manifested the slightest indisposition, having hitherto escaped colic and the ordinary disorders of the dentition period, as well as other diseases.

The stools, which were flattened and attenuated during the first six or eight weeks, had since that time presented the usual moulded form, and had been voided with ease and regularity.

Union of the Lid to the Ball of the Eye successfully treated by a New Method.—Dr. Hays called the attention of the Fellows to a plan of treatment for the relief of symblepharon, which he had recently employed with satisfactory results.

He stated, it was well known that adhesion of the lid to the ball of the eye, resulting from the action of caustic substances on the conjunctiva, or from purulent inflammation of that tissue, was generally considered not to admit

of cure. Mr. Lawrence says[1] that "the inconvenience may be considered as irremediable." Dr. Mackenzie states[2] that "when the adhesion is very extensive, interference is useless." Demours asserts that he "has often seen the adhesions rather increased than diminished by the operations for their removal." The operations of Ammon and Dieffenbach are complicated and painful, and, as remarked by Dr. Mackenzie, "it may be doubted whether the deformity which must result from them would not counterbalance the gain from the cure of the symblepharon."

Dr. H. stated that he had tried, with great care and perseverance, to relieve a case of adhesion of the lids to the ball of the eye, the result of purulent ophthalmia, which presented itself in the Pennsylvania Eye and Ear Infirmary thirty-five years ago, but with such entire failure that he had since that time avoided operative procedures in all cases where the adhesions were extensive.

Seventeen years ago he succeeded in a case, in Wills Hospital, where the adhesion was limited, in affording relief, by dividing the uniting band, and then drawing the cut edges of the palpebral conjunctiva together by ligatures. These edges united readily, and the adhesion between the palpebral and ocular conjunctiva was not reproduced. (See *Lawrence's Treatise*, Philada. ed. 1854, p. 335.) Mr. Wilde has since resorted to the same method, but it is evidently only applicable to cases where the bands of adhesion are of limited extent.

In April last, however, a very interesting lad, from Washington, D. C., seventeen years of age, applied to him for relief from the condition in question. About eight years previously, when playing in a building then being erected, a portion of lime had fallen into the inner angle of his right eye, cauterizing it, and resulting in adhesion of the lid to the ball over a considerable space. Some months subsequently to the accident Dr. H. was consulted, but advised that no operation should then be attempted, but promised, when the lad became older, if a more successful mode of treatment than any then practised should be devised, to try to do something for the boy's relief. At intervals the patient had been brought to Dr. H. for treatment, but the same advice was reiterated.

When he applied in April last, with much anxiety for relief, Dr. H. gave the case very earnest consideration, and a plan of treatment presented itself which seemed to him likely to prove beneficial.

In reflecting on the impunity with which recent experiments had shown that metallic ligatures might be inserted into the tissues, it occurred to him that if, after dividing the adhesions, a metallic plate were introduced between the surfaces, reunion might be prevented without irritation of the eye resulting from the presence of the metallic substance. He therefore determined to try this method.

The upper lid was solidly adherent to the globe from the inner angle over two-thirds the extent of the cornea, towards the outer angle. The lower lid was adherent at its upper edge over the same extent, but below a probe could be passed some distance towards the inner angle, where the lid was adherent through the remainder of its extent. The motions of the eyeball were greatly restricted; the lids, at the outer angle, could be separated to only a small extent, and were closely bound together at the inner half. He decided to try the operation on the under lid first.

With the assistance of Dr. G. W. Norris, a probe was passed beneath the horizontal band at the margin of the lower lid, and, the lid being

[1] Treatise, Am. ed. 1854, p. 172.

[2] Pract. Treatise, 4th ed., p. 655.

drawn from the eyeball, the band was divided with a probe-pointed scissors. A band running perpendicular to this at its inner termination was then divided with the same scissors, and the liberation of the lid at the inner angle completed with a small scalpel.

A piece of tinfoil, cut of the proper shape, was then, with the aid of a flat probe, placed between the lower lid and ball of the eye, bent over the down lid, the lids closed, and strips of isinglass plaster applied so as to keep the lids closed and the foil in its place. The foil was removed the next day, and, as it did not appear to have produced any irritation, a new piece was introduced. This was repeated every day until the surfaces healed. The motions of the eyeball tended to displace the foil, and prevented its being kept as close to the inner angle of the eye as was desirable. Reunion consequently took place to a small extent at this point, but the other parts healed entirely in three weeks, without any adhesion between the opposite surfaces. The result was sufficiently satisfactory to encourage him to try to liberate the upper lid.

The tinfoil being somewhat difficult to insert in its place, from its great flexibility, he had a thin plate of silver moulded of the proper shape to fit over the inner half of the eye. With the aid of Dr. N., the upper lid was dissected from the ball, and also the lower lid at its inner angle, where it had reunited. The silver plate was then introduced, but it proved to be too small, and was displaced by the motions of the eye, so that it could not be maintained in its proper position. Had the plate been large enough to cover the whole anterior surface of the ball, it would, Dr. H. thought, have answered. A thin hemisphere of glass, shaped something like an artificial eye, would also, he thought, have answered. Not having either of these at hand, it was determined to employ the tinfoil again. A piece was cut of a somewhat triangular shape, one edge passed by means of a flat probe under the lower lid, the upper lid then drawn out, and the other edge passed with the same instrument under that lid. The lids were then drawn together, and secured as before by isinglass plaster. The foil was renewed daily, and except that there was a recurrence of the difficulty previously experienced of keeping the foil close in the angle, and which allowed of slight adhesion at that point, everything went on satisfactorily, and at the end of three weeks the divided surfaces had healed over, and the motions of the eyeball were sufficiently free. The patient could also open his eyelids to a much greater extent than previously; but the power of the levator palpebræ had been weakened by the long period of disuse, so that the lids could not be opened as wide as those of the other eye; it may be hoped, however, that, now the lid is free, the muscle, by exercise, will acquire strength.

Anemia from Prolonged Lactation, Softening of the Brain.—Dr. Levick remarked that he had recently lost a patient in the Pennsylvania Hospital, whose case was an unusual one, and had particularly interested him.

She was a married woman, thirty years of age, and the mother of three children, of whom the youngest was about four months old and the second about twenty months. The interval between the births of her last two children, therefore, was only sixteen months, and she had suckled the elder of the two until within three months of the birth of the younger; so that gestation and lactation had gone on together during six months. Being very poor, she was destitute of all suitable provision for her lying-in, and remained very feeble after her confinement. When admitted into the hospital she was very pallid, and complained of a buzzing in her ears, or, as she expressed it, of "a feeling as if there were a dashing of water in the head."

The *bruit du diable* could be distinctly heard along the jugular vein, and the heart's action was frequent and feeble; but no other symptoms of disease of any kind were manifested. Full diet, and pills of proto-carbonate of iron and sulphate of quinia, were prescribed. In the course of a few days after her admission, she began to complain of sick stomach in the morning, and believed herself to be again pregnant. The sickness occurred only in the morning; so that she was able to leave her bed in the latter part of the day, and was well enough to be walking in the hospital garden only the day before her death. She was suddenly seized with convulsions, which continued for twelve hours, until she died.

At the autopsy, minute tubercles, in their incipient stage and without any evidence of irritation near them, were found on the pleura and the mucous membrane of the intestines, the freedom from injurious effect upon these structures having been shown during life by the absence of cough and of diarrhœa. A remarkable thickening of the whole muscular coat of the large intestine was noticed, but no disease of any other structure presented, excepting an alteration in the substance of the brain.

This was found to be of a pale cream colour and *completely softened*, almost diffluent in consistence. Not only the thalami optici and corpora striata but large portions of each hemisphere were involved in the ramollissement. There was no evidence of meningeal inflammation. No tubercles were discovered, although carefully sought for. Nor could any evidence be found of previous inflammation in the substance of the brain, notwithstanding a careful examination, in the mass and subsequently in detail with the microscope.

No compound granular corpuscles or other mark of cerebritis could be detected, although the healthy brain was everywhere broken down. The basilar artery was carefully searched for fibrinous clots, and its structure was inspected for osseous or other degeneration, but nothing of the kind existed.

The softening of the brain could not have been cadaveric, and must, in the absence of other local signs of alteration, be attributed to inanition—a want of proper nutrition, due to the condition of the blood produced by the combined influences of prolonged lactation, recurring pregnancy and labour, in a patient deprived of the usual comforts of the sick-room.

Dr. Levick regarded the case as a remarkable instance of great change of structure in the substance of the brain during life, without loss of motion or impairment of intellect; and he thought it worthy of note, also, as a striking illustration of the injurious effect of excessive lactation, especially under circumstances of health and position which must invariably aggravate the mischief.

Sept. 10. *Maggots in the Meatus Auditorius removed by means of Tannic Acid in Glycerin.*—Dr. R. P. Thomas mentioned a case, recently under his care, of a young lady, from whose ear he had removed a large number of maggots. He said, while the lady was standing under a tree a small fly (probably the common maggot-fly) darted into her right ear, and remained there, in spite of all efforts at extrusion, for fifteen or twenty minutes. He presumed that it sought this cavity as a place of deposit for its eggs. Eight hours later a sensation of motion was experienced in the ear; at first faint, but afterwards more distinct, and increasing in violence until her powers of endurance were taxed to the utmost. Forty-six hours after the oviposit was made his attendance was requested. Her agony, from the motion and roaring sound in the ear, was indescribable. The external meatus proved to be unusually narrow and deep, and thereby rendered an

examination with the otoscope unsatisfactory. Having detected a tremulous jelly-like mass on the tympanitic membrane, he attempted its removal with an ear-scoop, but failed. A resort was then made to injections of strong soapsuds, and in the course of a few minutes a maggot crawled out far enough to be visible, and thus to determine the nature of the case. Their removal by mechanical means, without injury to the delicate membrane, was impossible, and chemical solutions strong enough to affect their vitality were deemed too hazardous to the same structure. Sweet oil or almond oil will generally float out a bug or other small insect that may stray accidentally into the meatus; but their efficiency in removing parasites that have the power of attaching themselves to animal membranes having been deemed more questionable, he resolved, finally, upon trying a solution of twenty grains of tannin in an ounce of pure glycerin. The reason for its employment was twofold, viz: first, exclusion of the air from their breathing pores by the glycerin; and, second, the probability that the irritant effect of the tannin upon the delicate surfaces of the parasites would cause such a degree of activity as would bring them within reach of the forceps. The result confirmed the anticipation, and twenty-three maggots, each three-eighths of an inch in length, were removed by a slender forceps in the course of a few minutes.

The relief was immediate and complete; in two or three hours the cerebral excitement was allayed, and the following day the patient was entirely free of all uneasiness.

Several months have elapsed without the manifestation of any injury to the ear or the sense of hearing from the accident.

Oct. 3. Peritonitis with Disease of the Solitary and Agminated Glands in an Infant.—Dr. J. C. Morris exhibited a specimen of disease of the solitary and agminated glands, taken from a child eight and a half months of age who had died of peritonitis. He described the symptoms presented during life as follows:—

On last Monday week (Sept. 24) she was seized with a chill, followed by fever, with slight diarrhœa. There was some tenderness of the epigastrium, but no distension of the abdomen. The fever showed some tendency to regular remissions and exacerbations, so as to make me doubt whether I had a case of bilious fever, or of "infantile remittent" to deal with. The course of treatment pursued was the administration of mild laxatives and alkaline diaphoretics. The disease, however, did not yield, and very early on Friday morning she had a severe chill, followed by great distension of the belly and tenderness over the region of the liver. Calomel in small doses, and afterwards turpentine, were freely given, with wine whey, but she sank gradually, and expired during the next night, having vomited black grumous matter and thin blood shortly before.

Dr. Packard having made the autopsy, the following abstract of his account of it was then given by Dr. Morris:—

Post-mortem twelve hours after death.—Not much emaciation; no rigor mortis; hypostatic congestion. Lungs healthy, with some hypostatic congestion; heart soft; its tissue granular under the microscope. A large quantity of rather thin, healthy pus flowed out when the abdomen was opened. Omentum much congested. Patches of yellow lymph all over upper surface of liver and opposed portion of diaphragm, and over the spleen. Gall-bladder filled with dark, viscid bile. Stomach healthy, pale, except one or two slightly injected spots near the greater extremity: a patch of diffused redness in the duodenum. About eighteen inches from the commencement of

the jejunum, there was a patch of redness with several erosions. Peyer's patches seemed somewhat thickened, and stained deep grayish-brown. Here and there in the small intestines were patches of a yellow deposit. All along the large intestine the mucous membrane was studded with small dark round spots, very much like the deposit in the patches already mentioned; they corresponded to the solitary glands, and made the membrane resemble a leopard's skin. No other change in the large intestine.

Suspected Fracture of the Base of the Skull, attended with peculiar pathological phenomena.—Dr. R. P. Thomas read the following report:—

Michael ——, aged 27, was admitted into the surgical ward of the Episcopal Hospital, July 27th, 1860. While in a state of partial intoxication, he pitched head-long down one of the chutes on the Richmond coal wharves, a distance of eight or ten feet, and fell upon the right malar and temporal bones. He was taken immediately to the hospital. Upon examination the ramus of the right lower jaw was found broken about midway between the angle and the condyle. There was severe contusion of the right antero-lateral part of the head, but no fracture of the bone in that region, and but little laceration of the soft parts. Blood flowed freely from the nostrils and both ears. There had been vomiting prior to admission. The patient was almost unconscious; the face covered with a clammy sweat; the pulse 90, feeble; and the skin cold. Both pupils dilated, though unequally; the right eye was open, the left closed.

Diagnosis.—Concussion of the brain, with a probable fracture of the base of the skull towards the left side from the contrecoup. To sustain the sinking powers, small portions of milk punch were cautiously administered from time to time for the first few hours. Reaction took place; the pulse became fuller and stronger, and the skin warm, but the intellect remained obtuse. When the reaction was established, a mixture containing one-fourth of a grain of sulphate of morphia, and three grains of extract of conium was administered every four hours with a view of controlling the brain, and preventing the development of excitement, or delirium.

This plan, with beef tea as nourishment, was continued for three days, all alcoholic stimulus being avoided. At the expiration of the period named, the patient had the control of his sphincters, and could answer questions rationally, but could neither open nor close his eyes. The oozing of blood from the ears had nearly ceased, and the dilatation of the pupils was not so great. Their inequality, however, was still manifest. Improvement in all the symptoms occurred; the fracture of the lower jaw united, and at the end of six weeks he was permitted to walk about the ward. At the present time his appetite is excellent; he sleeps all night; is entirely free from pain; and his general condition is good.

During the progress of convalescence, some singular phenomena have been manifested, which afford a pathological confirmation of the correctness of the usual anatomical descriptions of the distribution of the nerves of the face and the eyeball.

The blow that fractured the ramus on the right side, paralyzed the portio dura nerve where it passed over the jaw, as evidenced by the drawing of the mouth to the left when he laughs, by the flat and expressionless aspect of the right cheek, and his inability to close the right eyelid, which is supplied by this nerve. The right eyelid never has been closed since the time of the accident. The injury to the portio dura must have been external, because the parts supplied by its branches, arising posterior to the ramus of the jaw, are not paralyzed. It is not probable that any internal injury involv-

ing the nerves of the right side has occurred, since they all perform their functions. The mobility of the tongue and of the eyeball on this side is perfect.

On the left side, the reverse phenomena are observed. The portio dura and the sixth nerve remain sound, while the third and fourth nerves are paralyzed. Here the injury is internal, but its outward manifestations are wonderfully distinct. I stated the patient could not close his right eyelid; I will now add he was unable to open the left. This latter fact involves two nerves, namely, the portio dura, which closes the lid by acting through the orbicularis muscle, and a branch of the third nerve which goes to the levator palpebræ muscle to open the lid by drawing it back. That branch fails in its duty, as do, also, the other branches of the third. For instance, if the patient be requested to look with the left eye upwards, inwards, or downwards, or upward and inward, or downward and outward, or to converge the axes of the two eyes, he cannot, or rather could not comply—the eyeball remained perfectly stationary; thus showing that both the third and the fourth nerves of the left side have been, and to a considerable extent still are paralyzed, since the former of these nerves supplies the superior, inferior, and internal straight muscles, and the inferior oblique, and the latter goes to the superior oblique.

If, on the other hand, he be requested to look at some object at a distance to the left, both eyes immediately converge upon it, thereby proving the left external straight muscle, and the sixth nerve which supplies it, to be perfectly sound.

The pupils were stated to have been widely and unequally dilated. At present they are nearly equal, though the left is still sluggish in its motions. The focal distance is widely different in the two eyes, being about five inches for the right, and nearly two feet for the left. Of course the patient sees two images, the outline of one being made more distinct than the other. He has difficulty in reading fine print.

There is dulness of hearing on both sides to a degree requiring the voice to be raised to a pitch above that of ordinary conversation. This is chiefly owing to the rupture of the tympanic membrane in each ear. On the right side, the anterior-inferior segment of the membrane is torn loose, and the handle of the malleus is directed outwards towards the auditory canal, instead of being inclined inward to the cavity of the tympanum. On the left, the superior segment is ruptured, the malleus remaining in position. There is now no discharge from either ear, a small pledget of cotton being kept in each, for the double purpose of protecting the cavity from atmospheric changes, and of serving in a slight degree as a substitute for the natural membrane.

The remaining cerebral nerves do not appear to have been injured, as no evidence of disturbed function exists.

During the past three weeks there has been a perceptible increase in the motions of the left eyeball and lid, and hence there is some probability of the functions of the third and fourth nerves being eventually restored. The right portio dura nerve seems to be permanently injured, as the muscles supplied by its temporo-facial branches do not perceptibly contract under the stimulus of a galvanic current.

Medical Note on the more familiar Flies; from Entomological Sources.—Dr. B. H. Coates had been induced, by remarks made at a previous meeting in regard to the larvæ deposited by flies, which infest the sick room and hospital ward, to make some special references to entomological authori-

ties upon the subject, and read the following abstract as the result of his inquiries:—

It appears that the species of animals more or less nearly resembling the domestic fly, are so numerous that a recent writer has described no less than 1700 resident in Europe alone. The order is more frequently called Myidæ, than by any other name. Three groups of genera most commonly interfere with our comfort. The first, composed of Trachinia, with its allied genera, are most remarkably characterized by the rapidity of their flight; the second, Sarcophaga, and its allies, by sucking a variety of objects, and by a fondness for putrid flesh; and these include the most common domestic fly, Sarcophaga, formerly Musca domestica; and the third group, formed of Stomoxys and the genera which resemble it, by piercing the object which they suck, thus extracting, in many instances, blood from the human subject.

These classifications are formed on the study of the perfect insect, the well-developed parts of which admit of minute subdivision and discrimination; while nice distinction seems impossible with the larvæ, which much resemble each other. All of them undergo their changes within a shell formed out of their own external skin; and they produce no web.

The larvæ of the Trachinidæ pierce animal bodies, enter quite into their interior, and live there. The Sarcophagidæ are viviparous, the parent depositing no egg but living maggots. They are deposited on the surfaces of bodies, and never enter them. The parent, in general, prefers putrid matters for their nidus. The larvæ of the Stomoxydæ, in general, insert an appendix of the forepart of the body into the animal matter to which they adhere, and remain attached by it.

These notes are compiled from Mr. Westwood's *Introduction to Entomology;* and it was thought not improper to present them for the use of members of the College, in connection with the injuries inflicted by these animals on the human body.

Case of Fracture of the Thigh successfully treated by New Apparatus.—Dr. Henry Hartshorne stated that he had, recently, through the kindness of Dr. R. P. Thomas, one of the surgeons to the Episcopal Hospital of this city, had an opportunity to make a full trial of the apparatus described and exhibited by him to the College about two years since;[1] the most essential novelty of which consisted in the principle of *supra-pelvic counter-extension.* The details of the case were, briefly, as follows:—

John Curry, a carter, aged 49, was admitted to the hospital, July 17, 1860, with a transverse fracture of the lower third of the femur. When the fragments were coaptated, there was, of course, no shortening; but displacement easily occurred, producing, on account of the muscularity of the patient, decided projection at the seat of fracture. The apparatus of Dr. Hartshorne, above alluded to, was applied the day after his admission. It is composed of two long outer splints, each of which is widened at its upper end sufficiently to allow of a bar or cross-piece being placed from one to the other *over the umbilicus* of the patient, who lies between the two splints. The *counter-extension* is made from this cross-bar. At their lower ends the splints are much narrower, and are fastened to a foot-board for the purpose of fixity and steadiness. Extension is made by means of a rotating cross-bar or windlass (between the splints, below the foot), to which *adhesive straps* connect the extremity. An attempt was made, during the first few days of the treatment of this case, to use adhesive plaster for coun-

[1] See Am. Journal of Med. Sciences, October, 1858, p. 395.

ter-extension. But, notwithstanding the utmost care, the straps became creased, twisted, and rolled into such shapes as to become very uncomfortable to the patient, and they were consequently abandoned. The perineum was then smoothly and accurately covered with pieces of *kid* spread with *soap-plaster*, and the common stuffed perineal band was applied. This answered the purpose *without discomfort* and *without excoriation* during the whole of the rest of the treatment. The *middle splint*, which forms a part of the original apparatus, was dispensed with in this case. Coaptation was maintained by the strips of Scultetus, and the limb was secured to the long splint upon its outside by a broad bandage; a junk-bag being interposed between the splint and the limb. A flat junk-bag or cushion was also placed under the injured limb, reaching from *just below* the tuberosity of the ischium to *just above* the heel.

Notwithstanding the prepossession of the patient against the apparatus, from his having heard that it was new, he soon became quite reconciled to it; and upon its removal, September 8, there was found to be absolutely *no shortening*, and *no deformity* whatever. The small amount of callus thrown out could only be detected by *palpation*.

The entire success of the treatment, even of this single case, is sufficient to demonstrate the availability of the plan of *supra-pelvic counter-extension*, which, so far as Dr. H. H. was aware, had been first applied in this apparatus. No objection or difficulty of any kind presented itself in the management of this case.

It was evident, however, that the apparatus could be simplified by making the counter-extending cross-bar *fixed* instead of revolving, and by modifying the foot-board into a simple joining piece for the splints.

In this form, or modified in any manner which may be suggested, he could not avoid the opinion that the principle of supra-pelvic counter-extension is deserving of more extended trial. It may be urged, at least, on its behalf—

1. That it is, *surgically*, more *correct* than the *oblique* counter-extension of Desault's apparatus, being *directly in the line of the limb*.

2. That, as the pressure of the counter-extending band is chiefly upon the *tuberosity of the ischium*, the tendency to the production of excoriation is much less than with oblique counter-extension.

3. That such an apparatus admits of greater *stability* and *security* than those ordinarily in use.

4. That in its simplest form it is not more difficult of construction, while it is decidedly more convenient in its application than Desault's apparatus, and requires less subsequent modification or arrangement.

Lastly, he repeated his conviction of the advantage (as compared with *adhesive plaster*) for counter-extension of the protective or *supplementary tegument* of *soap-plaster*, with the ordinary perineal band.

Employment of the Colpeurynter for Dilating the Os Uteri during Labour.—Dr. KEATING read the following paper on this subject: I propose to lay before the College a novel employment of the colpeurynter, the use of which for obstetrical purposes was first suggested by Prof. Braun, of Vienna. Although this instrument has crept into practical use so as now to be of almost universal application, still it has not as yet been appreciated by many as thoroughly as it should be. The proposed application of the instrument is, I believe, entirely original with myself, and as the purposes which it subserved in the case I am about to relate were of the gravest character and the results most successful, I deem it just to suggest its

use under similar circumstances, as most likely to benefit a class of obstetrical cases for which, heretofore, we have had but the slenderest resources.

Mrs. P. became pregnant with her third child. Her first labour, I learn from other sources, was most severe and protracted, necessitating the prolonged application of the forceps, and the final extraction of a dead child. As the result of this severe labour, an extensive laceration occurred through the os uteri and the vagina; as a consequence, the os uteri and vagina were united in bands of cicatricial tissue. She again became pregnant, labour supervened at eight months, and at the expiration of twelve hours, a dead child was expelled naturally. Lacerations again occurred in the cicatrized portions of the uterus and vagina, and, as the result, such a complete occlusion and atresia followed in the vagina, that when first called to see her in consultation with Dr. Packard, in the month of June, 1859, the vagina was found only an inch and a half in length, excessively contracted in its circumference, and terminating in a cul-de-sac of cicatricial tissue in which there seemed to be a small opening of the size of a pin's head, through which the menses oozed guttatim. The latter seemed in fact to accumulate at times in a pouch behind the above-mentioned cul-de-sac. I was consulted on account of the irregular oozing of blood, the constant pain in the vagina, a severe dragging pain in the rectum during defecation and for some time after, and a continual nausea which so depressed and debilitated the patient as to incapacitate her for her ordinary domestic duties. We endeavoured by means of large metallic tubes of different sizes to dilate the vagina, and commenced at the same time with graduated cereoles to increase the small opening through which blood irregularly oozed. Finding that the vagina was exceedingly contracted and highly sensitive, we determined to allay its sensibility, and attempt gradual dilatations with the colpeurynter, at first expanded with air, afterwards with water. Some conception of the state of the parts may be formed when it is stated that even with the most gentle and gradual application of this unirritating instrument, the pain was so intense that I was forced to resort to anæsthesia. After repeated employment of the colpeurynter, I discovered that although the sensibility of the vagina was somewhat allayed, still no impression had been made upon the mass of abnormal tissue which formed a barrier between the ostium vaginæ and os uteri. I then resorted to gradual dilatations of the small opening in the vagina by means of the most accurately graduated steel sounds; the opening was so small and so intimately connected with the tissues in direct contiguity with the bladder, that its dilatation was slow and painful I soon found that there were other contractions and adhesions in the vagina, and in fine was obliged to cut and dilate four successive and distinct bands before I could reach that portion of the vagina in which I conceived the os uteri to be imbedded. Having reached the os, I found that it had also been dreadfully lacerated, and that the whole anterior lip had sloughed off, leaving a bevelled edge, which was continuous with the vagina, thus destroying entirely the anterior cul-de-sac formed by the mucous membrane of the vagina as it is reflected over the os and cervix. I now resorted to gradual dilatations of the opening leading into the uterus, and finally succeeded in introducing Simpson's sound into the organ, thus proving that this opening was really the mouth of the uterus. The canal of the vagina was then dilated by means of the colpeurynter, and the os uteri kept open by means of sponge tents.

Mrs. P.'s health now began to improve, her nausea ceased, her menstruation became regular, and she gave every indication of returning health.

Some months after, her menstruation ceased, and she proved to be pregnant. About the third month of pregnancy, a slight discharge of blood occurred, and we feared a miscarriage; by rest and appropriate means the threatenings ceased, but a per vaginam examination at this period revealed the distressing fact that under pregnancy the os uteri had entirely closed. There was, however, a slight dimple in the cicatricial tissue, in which we supposed the orifice of the womb to be placed, so minute, however, and so imbedded in inodular tissue, that it was impossible to predicate with any certainty its position. I examined Mrs. P. twice during her pregnancy, and found the condition of the os uteri unchanged. The child seemed active, and the abdominal tumour normal in size and position. I was summoned with Dr. Packard to see Mrs. P., on Wednesday, the 24th ult., at 9 P. M. Without the advent of any pain, the membranes had undoubtedly ruptured, and the liquor amnii was oozing away. According to her calculation she was six months and three weeks pregnant. Although the liquor amnii had been dribbling away for near two hours when we saw her, the form and position of the abdominal tumour remained unchanged; the fœtus was very active in its movements, and its heart was distinctly heard towards the left iliac region. A per vaginam examination revealed a perfectly occluded os uteri, but in its place a distinct indentation surrounded by a projection of dense cicatricial tissue; no part of the fœtus had engaged in the superior strait, and labour had evidently not as yet supervened.

The extensive lacerations from previous labours, the amount of cicatricial tissue surrounding and entering into the os uteri itself, its apparent occlusion with labour threatening, were circumstances which caused us great uneasiness in the case, and determined us to call in Prof. Meigs. This distinguished obstetrician coincided in our views and considered that although there was no positive certainty, still the probabilities were that the opening of the os uteri through which the liquor amnii oozed was in the indentation of abnormal tissue to which reference has already been made. Mrs. P. was in a nervous, irritable state, and to calm her we prescribed an enema of forty drops of laudanum. The next day the waters continued dribbling away, but the abdominal tumour did not seem to diminish, and the vitality of the fœtus was unimpaired. Mrs. P. remained much in the same condition until Friday, at 2 P. M., when regular uterine contractions set in. These pains evinced all the characters of true labour-pains, but after their regular continuation for four hours, it was found that they had made no impression upon the os. Prof. Meigs having gone out of town, Dr. Keller was called in consultation, and it was agreed that I should introduce the colpeurynter into the vagina, and thus assist in dilating the vagina and os, by at first gradually expanding it with air, and then with water. This instrument was immediately applied, and its use persevered in the whole afternoon and evening. From examinations which I made during the afternoon, I soon became convinced that the colpeurynter was assisting in dilating the os, and about 9 P. M. discovering with my finger a small opening in the mass of cicatricial tissue about the size of the head of a small tack, I immediately commenced the insertion of well graduated metallic sounds, and soon dilated the opening to such a degree that I could introduce the end of my little finger, and diagnosticate a cephalic presentation. The pains continuing frequent and forcible, I assisted the dilatations with my fingers.

Drs. Keller, Packard, and myself met at 10 P. M. We all agreed that the labour had made some progress. We now noticed, however, that the

head could not engage fairly in the circle of the os uteri, but was caught in a sling-like projection of the posterior lip; the anterior lip, as before mentioned, having sloughed off after a previous labour, left the os bevelled off very much in the condition of a pig's snout. Although we endeavoured to keep down the resistance of this portion of the os uteri, and pressed it back during the accession of pain, still it was evident that owing to the resistance of the tissue of which it was composed, it did not yield. The labour seemed stationary. Mrs. P. having now been suffering from strong pains for at least eight hours, with the waters evacuated, it was apparent that unless some artificial assistance could be given to her, much difficulty would be experienced. In the first place, the labour would be a very painful and tedious one, owing to the condition of the os and surrounding tissues, the absence of a bag of waters to act as an entering wedge and assist the dilatations; and owing, also, to the bevelled condition of the os uteri preventing the head from engaging correctly. In the second place, the condensation of the uterus from active contractions in the absence of liquor amnii, must very soon tell upon a delicate fœtus of six months and three weeks, and endanger its vitality. In fact, its movements were already becoming very infrequent and feeble, and I had not been able to hear the pulsations of the heart since 8 P. M. I was most anxious then to facilitate the dilatations of the os, and thus hasten the delivery of the fœtus, and increase its chances of living. At 11 P. M. finding that the os remained about the size of half a dollar, I proposed to my colleagues to allow me to introduce the colpeurynter into the uterus, between the head of the child and os uteri, and gradually distend it with water, the idea being that in so doing I might, by keeping the colpeurynter distended in the absence of pain, prevent the complete condensation of the uterus, and thus protect the child, while at the same time during the contractions of the uterus, the colpeurynter being of a spherical shape might be pushed down in front of the head, and engaging within the os uteri, act as a more equal and certain dilator than the head, which, owing to the bevelled condition of the os, had a constant tendency to engage, with the occipito-frontal diameter instead of the occipito-bregmatic, and to push the posterior lip down before it, producing the sling-like condition just referred to, and resisting the descent of the child. This application of colpeurysis was immediately attended with the greatest success, the pains which had lulled and almost ceased, immediately revived, and I believe that I express the unanimous opinion of my colleagues in stating that the action of the instrument far exceeded our anticipations. During each contraction, it assumed a shape, condition and action so entirely analogous to the bag of waters that it could readily be mistaken for it. The dilatations of the os uteri rapidly progressed, and the movements of the fœtus became again more frequent and active, so much so that this fact was noticed and dwelt upon by the patient herself.

About 12 P. M., we withdrew the colpeurynter; the os was then sufficiently dilated, but the descent of the fœtus was retarded by a hand and foot having engaged with the head. Having caught hold of the presenting foot, Dr. Keller secured it with a fillet. I then performed version, and delivered the head in the first position of the vertex at 1.15 P. M.. The fœtus at first gave but slight signs of life, but by means of heat and slight stimulation it gradually revived, cried, and was finally as vigorous as could be expected for six months and a half. It lived till the next day at 2 P. M. Placental delivery was natural, and the mother convalesced rapidly.

I believe that there can be no doubt that the rapidity of the delivery and

safety of the child can be attributed to the introduction of the colpeurynter, and I suggest its similar application in all cases where the waters having been evacuated early, the dilatations of the os are consequently slow and the labour prolonged.

It seems to me that under some circumstances an amendment might be made to this method, by first throwing into the womb a quantity of tepid water and preventing its escape by closing the os uteri with a colpeurynter distended with water or air after its introduction. In a case of partial placenta prævia presentation, which occurred to me some months since, I introduced the colpeurynter into the os uteri, and after distending it with water succeeded in arresting the hemorrhage, and in promoting rapid dilatations of the os uteri. It has occurred to me that in breech presentations it would also prove a most valuable auxiliary in causing full dilatations of the os uteri, previous to the descent of the breech or feet, and also in promoting the dilatations of the canal and perineum previous to the descent of the head, thereby producing a rapid delivery, and increasing the chances of the vitality of the fœtus. It has been customary with me, in the last two years, especially in cases of first labour where I discern the existence of great resistance from the soft parts and perineum, to prepare the canal for the descent of the fœtus by colpeurysis of the vagina and perineum, whilst the os uteri is dilating. I think that I have often in this manner shortened the labour by at least an hour without running any risks. On the contrary, by saving the individual so much pain, nervous excitement, and the engorgement of sensitive tissues by prolonged pressure, I have in many instances, and especially during particular seasons, prevented those morbid conditions which are apt to give us dangerous sequelæ. As a promoter of uterine contraction in lingering labours from a premature evacuation of the waters, I consider that colpeurysis is far superior and far safer than the administration of ergot, which is the great remedy of the timid and the ignorant. In all these applications of the colpeurynter I am in the habit of regulating its distension according to the feelings of the patient herself, commencing at first with air, and ending with water, although in many cases the air itself is sufficient. I enjoin upon the patient to increase or diminish the quantity according to her own feelings, thus placing it entirely under her command.

In conclusion, I beg leave to state, that this little, unpretending instrument is destined to revolutionize many of the operations of midwifery. Every day convinces me more and more of its extreme importance, and I shall take occasion before long to place before this learned body the cases, in detail, in which I have successfully applied it. In the present instance I have no hesitation in asserting that, 1st. By colpeurysis we assisted the dilatations of the os, so that we could introduce a sound and finally our fingers. 2d. It promoted uterine contractions when they were about to lull. 3d. by colpeurysis of the uterus itself we substituted an artificial for the natural bag of waters, thus facilitating dilatations, hastening delivery, and relieving the patient from a prolonged labour. 4th. By the continued presence and distension of the colpeurynter within the uterus, we prevented its complete condensation, protected the fœtus, and maintained its vitality. 5th. By colpeurysis of the vagina we prepared the canal and perineum for the descent of the fœtus, and thus hastened its delivery. 6th. As a final result, if there be any truth in the assertion of Simpson that the dangers for the parturient woman are in proportion to the duration of labour, by facilitating and shortening the delivery of our patient she was proportionally saved

from those dangerous sequelæ so apt to occur after painful and tedious labours, especially where, as in this case, there had to be lacerations of old cicatrices connected with important organs.

1861. *Jan.* 2. *Large Interstitial Cancerous Tumour of the Impregnated Uterus, rendering Delivery Impossible.*—Dr. Wm. V. Keating read the following account of a very remarkable case of this kind:—

I was requested to visit Mrs. J. in the month of July, 1857. She had been married on the 19th of May previous, and had perceived a slight menstrual discharge on the 22d of the same month, since which time she had no signs of menstruation. Being requested to inform her at what period she might expect her confinement, I calculated that her labour might supervene at any moment after the 24th of February.

Mrs. J. was a native of South America, and when I saw her was in her 30th year. Her complexion was of an olive tint; temperament nervo-bilious. She had previously enjoyed good health, having in fact suffered from none of those ailments incident to her sex at the period of puberty. In the year 1853, without any appreciable cause, in the interval of a menstrual period, she was suddenly seized with uterine hemorrhage, which, though short in duration, was quite active in character. Her attendant, the late Dr. Jos. Nancrede, was called in, and by means of rest and the usual remedies was soon able to arrest it. She never had a return. Mrs. J. subsequently suffered from impaired vision, and had been under Dr. Sichel's care in Paris; and although his directions were strictly carried out, she could seldom indulge in reading, writing, or sewing.

The peculiarity of Mrs. J.'s complexion had forcibly impressed me upon my first visit, and elicited from me many inquiries as to her previous health and the history of her family. I could not but feel some apprehensions in reference to the existence of some cachexia, and my solicitude was only quieted by the assurances of her friends, to whom I communicated my fears, that the peculiar tint resembling cirrhosis, which attracted my attention, was natural to her. Upon questioning her maid, after her death, I discovered that her menstrual discharge had generally been scanty and emitted a very fetid odour, such as she had never noticed before, although in other respects it had the usual characteristics. Mrs. J. enjoyed remarkable health during the period of gestation, and was unusually active, walking often six miles a day, for inasmuch as her weakness of vision prevented her from attending to the usual occupations at home, she was forced to resort to out-door amusement. My sole attendance during her pregnancy was for a violent pain in the anterior portion of the left thigh, an inch above the patella. The pain was very severe, and seemed to cause her great annoyance; it was paroxysmal in its character, and was finally relieved by repeated vesications and endermic applications of the sulphate of morphia.

On Sunday, the 28th of February, at 9 A. M., I was summoned to visit Mrs. J. She had been seized with acute pains in the uterine region, between 1 and 2 o'clock A. M. About 4 A. M., during one of her pains, she felt something give way, and immediately there followed a gush of a greenish fluid. These pains continued accompanied by a discharge of some bloody mucus until I reached the house, not increasing in intensity or rapidity, but always attended with a dribbling of the greenish-coloured fluid. I immediately took advantage of the access of a pain to make a per vaginam examination. Upon reaching the os uteri, I found it, to my utter astonishment, entirely closed with a cervix uteri as undeveloped as in the

sixth month of pregnancy. The os felt hard and not well defined, the cervix almost cartilaginous to the touch, and totally unlike anything which I had ever observed in the organ at this period of pregnancy; repeated and accurate examinations soon revealed the fact to me that the pains had no effect whatever upon the os uteri, whose dilatations had not as yet commenced. I made the usual examination of the straits of the pelvis, and determined that that organ was in every way normal, and hence feared no difficulty in that quarter. My patient was of course in an exceedingly nervous condition, and most anxious to ascertain my diagnosis and prognosis. The pains having had no effect upon the os uteri, and seeming to diminish in intensity and frequency, I deemed it most prudent to state that she was not as yet in labour, but that probably true labour-pains would soon supervene.

The advent of the estimated period of labour, the supervention and continuation of regular uterine contractions with the rupture of the membranes, viewed in connection with the existence of an undeveloped cervix and a perfectly closed os uteri, aroused serious apprehensions in my mind as to the probable existence of some obstruction in the labour or malposition of the fœtus. I requested a careful external examination of the abdomen. I found the abdominal parietes presenting all the tension of the full period of gestation; the uterus had also subsided, and inspection revealed an abdominal tumour of singular shape, the longest diameter of which corresponded to a line drawn from the right hypochondriac region to the anterior-superior spinous process of the left ileum. Careful palpation and even inspection revealed a sulcus or line of separation in the tumour, commencing on the left side about four inches below the last false rib, and extending obliquely down to within an inch of the symphysis pubis, and dividing the uterus into two portions. That portion of the tumour towards the right side was quite prominent; towards the left iliac region a less prominent orbicular mass could be felt, resembling the fœtal head. During the contractions of the fundus and body of the uterus, which I could distinctly feel with my hand laid on the abdomen, the right and more prominent portion of the tumour seemed to undergo forcible contractions, but the orbicular mass to the left seemed in no ways affected, and always maintained its primitive position and condition.

Auscultation at this period revealed very feeble pulsations of the fœtal heart in the hypogastric region, a little to the right side.

I had serious misgivings as to the nature of the case. The above examination convinced me that there existed probably a twin pregnancy with a malpresentation, complicated with premature rupture of the membranes and a rigid os uteri. As the bowels had not been moved for forty-eight hours, I prescribed a dose of oil, and left. Upon my return at 2 P. M. I found that the pains had entirely ceased, but the discharge of liquor amnii still continued whenever she moved. I made another examination, and found everything in the same condition. The os uteri being closed, the pains having subsided, there was nothing to do but to revive the drooping spirits of my anxious patient, whose extreme confidence in the correctness of the calculation of her period of labour, caused her to suspect that there was some serious cause retarding its progress. The existence of a cervix uteri, the entire closure of the os uteri, the subsidence of all pains, were sufficient considerations to lead me to doubt the accuracy of the computation of her pregnancy; hence I deemed myself justified in asserting that she could not

have reached the full period of gestation, and having thus succeeded in calming her fears, I left her.

I visited Mrs. J. on Monday the 1st of March; found her sitting up, and quite refreshed in body and mind, having passed an excellent night, without any return of uterine contractions. The liquor amnii was still oozing from her, and she was annoyed with a constant desire to micturate; she was slightly feverish, but not more so than might be expected in one of such a nervous temperament, annoyed by the sudden subsidence of her pains, and most anxious for labour to supervene. She continued very much in the same condition until the 14th of March. Auscultation, however, never revealed any sound of the fœtal heart after the 28th of February. The dribbling of the liquor amnii continued till the 4th of March; the colour of the fluid then changed to a dark mahogany, with a fetid odour. Occasionally slight paroxysms of fever occurred, but generally as the result of her extreme restlessness and anxiety. During this period there would also occur now and then slight paroxysms of pain, but very feeble and of very short duration, and upon palpation during these pains I could invariably discern that the contractions were confined to the right and more prominent portion of the tumour. Repeated vaginal examinations afforded always the same results, the same conditions of the os and cervix uteri. About the 8th of March the uterine tumour assumed such a position as to cause great inconvenience and at times much suffering. Locomotion was almost impossible, and when the patient was seated the uterine tumour seemed to project over the symphysis pubis, and, as the nurse stated, seemed to rest on the upper portion of her thighs; the legs and feet became quite œdematous. The desire to micturate was incessant, but the urine was scanty, high-coloured, and slightly albuminous. On the 10th of March slight labour-pains occurred, with no effect upon the os or cervix uteri, and after a few hours subsided; the discharge became much more fetid, paroxysms of fever supervened, and so much restlessness and despondency ensued as to force me to resort to anodynes to calm her and to produce sleep. Finding that no change took place, and feeling serious apprehensions in reference to her state of mind, I requested a consultation on the 14th of March. Prof. Meigs visited my patient at 12 o'clock that day, and after a careful examination both internally and externally, fully coincided in my opinion, viz., that the condition of the os and cervix uteri and the absence of all true uterine contractions producing dilatations of the os, with the impossibility to feel any motion of the fœtus, authorized the conclusion that our patient could not have reached the full period of gestation. The extraordinary form of the uterine tumour induced Prof. Meigs also to suspect that there might either be a transverse presentation of the fœtus, uterine pregnancy, a bicorned uterus, or a Ritachristina. As the result of our consultation, we endeavoured to calm the fears of the patient and her friends, and resolved to wait and abide the indications of nature.

Mrs. J. continued in the same condition until the 16th (Wednesday), save a change in the colour and consistence of the discharge, which consisted now of a pink-coloured grumous matter with a peculiarly fetid odour. Upon palpation of the abdomen, I could often discover contractions of the right portion of the abdominal tumour, without, however, any responsive action in the cervix or os, and without occasioning much pain; her state of mind was truly alarming—there were frequent febrile exacerbations, attended with a highly furred tongue, harsh dry skin, and copious discharges of mahogany-coloured urine, which yielded a considerable amount

of albumen to the proper tests. She was kept on saline draughts, and under the influence of Dover's powder.

On Wednesday morning I found her suffering from well-defined uterine pains, recurring about every fifteen minutes; upon palpation I discovered that coincident with these pains there were powerful contractions of the right portion of the tumour, but the orbicular mass situated in the left iliac region seemed completely inert and in no way affected by the uterine contractions. These labour-pains had supervened about two o'clock in the morning, and having increased regularly in intensity and frequency ever since, I was led to hope that a per vaginam examination would reveal a decided progress in her labour. At 10 A. M. I made a per vaginam examination. I found the canal very hot and dry, the os uteri seemed distant, and it was difficult to reach it; it was slightly opened, about one-eighth of an inch; cervix uteri still present, but the anterior lip of the os and left portion of the cervix uteri seemed exceedingly indurated, almost cartilaginous. No portion of the fœtus could be felt, and consequently it was absolutely impossible to diagnosticate presentation or position. Bowels being confined, and there being considerable febrile excitement, I prescribed a dose of castor oil and effervescing draught. Returned at 1 P. M.: pains continue increasing in intensity; os uteri opened a little more, and in pushing my index-finger well up into what seemed to be the cervix uteri, I thought I discovered an intestinal-like protrusion of the membranes; repeated examinations confirmed my opinion; I requested Prof. Meigs to visit her with me at 2 P. M. He coincided in my diagnosis, and suspecting the existence of a transverse presentation, recommended me to keep a strict watch so that I might seize the proper moment, rupture the membranes, and attempt version by the head. I remained near the patient all the afternoon, hoping to be able to carry out our design; the pains continued, not very intense, but of a most harassing character; no more effect was produced upon the os uteri or the presenting portion of the child. At 8 P. M. we held another consultation. Ordered anodyne enema and saline draught.

Thursday, 17*th*, 9½ A. M. Met Prof. Meigs. Our patient had a calmer night, and slept about fifteen minutes at a time. The pains continued during the night, but were now much more irregular and less intense; febrile action continues; discharge from vagina diminished; tongue much furred; breath extremely fetid. She was very fretful and irritable; form of tumour remains the same; no change in condition of os uteri; urine still very dark and albuminous. Ordered small doses of hydg. cum creta, to be followed by oil.

I returned at 2 P. M. She had two bilious evacuations and seemed much relieved, and was much more cheerful; skin moist; pains almost disappeared; no change in uterus; slight discharge of a grumous character and very offensive. Relished her dinner, and seemed inclined to sleep. Consultation held again at 6 P. M. She seemed more cheerful; had a refreshing sleep of four hours; pains slight and not frequent; the contractions still continued in right portion of the tumour. Anodyne enema repeated.

Friday 18*th*. Held a consultation at 9½. Passed a restless night; pains returned at regular intervals, and, although not very intense, were of a harassing character, causing her to be fretful and despondent; no change in internal parts; tongue furred; febrile action continues; breath very fetid. Ordered oil. Met again at 1 P. M. Oil operated once; pains of a slow lingering character; patient very despondent and entreats for relief; the presenting point of fœtus has made no advance, and os uteri remains

in the same condition. We decided upon giving 10 grs. of ergot every hour, and I remained with the patient to watch the effect. After the fourth dose the pains increased in frequency and intensity, and were of a most distressing character; the right portion of the uterine tumour contracted so actively that I at one time entertained serious fears that rupture of the uterus might occur, but the left orbicular mass still seemed perfectly inert, maintaining all its former characters with the sulcus remaining perfectly defined. We met again at 6 P. M. Pains still continued very violent. After a long and careful examination, Prof. Meigs thought that he felt a small portion of the fœtal head compressed within the cervix uteri, and concluded that what we had repeatedly considered an intestinal-like protrusion of the bag of waters was really a portion of the softened putrescent scalp. In an hour after this view was confirmed by the possibility of detaching portions of the scalp with the finger, we decided to allow the pains to push the presenting portion further down, and appointed to meet at 10 P. M.; but finding, at 9, that her pains were almost insupportable, and her entreaties for relief so urgent, I went to Prof. Meigs and requested him to bring his craniotomy forceps and blunt hook. We decided that although the os uteri was not dilated more than an inch and the cervix undeveloped, still, on account of the agony which she was enduring, we would be justisfied in making careful and gentle traction upon the presenting portion of the head, and thus force it to engage within the circle of the os. This plan of action was based upon the fact that her violent pains seemed to produce no effect, and believing that we had either a monster with two heads or a transverse presentation which nature could not disengage, we deemed it prudent and humane to assist by gentle traction efforts in forcing the presenting portion to engage. The difficulties we had now to encounter beggar all description. The extreme distance of the presenting surface, the exquisite sensitiveness of the canal, the tenesmic resistance of the os uteri, the difficulty in seizing and keeping hold of the small portion of bone which could be reached, seemingly imbedded in the tissues of the cervix uteri, presented such insurmountable obstacles that, after repeated efforts, attended solely with the crumbling and detachment of minute portions of bone, we were obliged to desist about 11½ P. M., especially as the patient had been for so long a period of time under anæsthesia. The condition of the os uteri under this operation was one which caused us the greatest annoyance and apprehension. It was utterly impossible to pass the finger around the anterior and left portion of the os, the presenting bones of the fœtal head seemed imbedded in the substance of the uterus itself, and every traction effort was attended with the sinking of a rough saw-like edge of bone deeper and deeper into the tissues of the cervix and lower part of the body of the uterus; posteriorly and to the right the finger could be introduced as far as its length would allow, but to the left the cartilaginous condition of the os and cervix uteri and the steady resistance of the orbicular mass seemed to defy all efforts at delivery. The patient was exhausted, the vagina had become intensely swollen; we were, therefore, forced to desist. An opiate draught was administered, and Prof. Hodge sent for. We all three met at midnight. Prof. Hodge examined and coincided with us as to the condition of things. We determined to allow the patient a certain period of repose, and then, under the influence of anæsthesia, to make further attempts at delivery. A powerful opiate was then administered, but the constant uterine contractions, superadded to her extreme anxiety, antagonized its effect. Nourishment and stimulus were administered, and at 2 A. M. Prof.

Hodge attempted to extract the presenting portion of the fœtus; but after the most powerful efforts, finding that no progress was made, we deemed it more prudent to keep the patient under opiates, and to soothe the vagina and os uteri with demulcent and antiseptic injections.

Adjourned our consultation to Saturday, 19th, at 9 A. M.

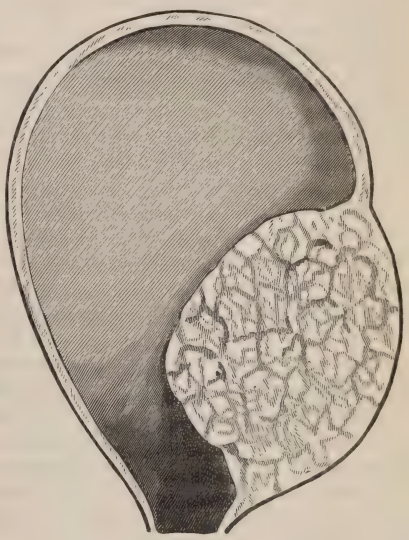
Mrs. J. did not sleep; uterine pains incessant; tongue very much furred; pulse 140; abdomen tympanitic; urine scanty and albuminous, and has to be drawn off by catheter; vagina in a high state of inflammation, and the discharges so fetid as to affect every one in the room. Prof. Hodge suggested that we should attempt dilating the os uteri by the application of Kiwisch's uterine douche; this was tried eight hours without any success, the pains became much more violent under its employment. Colpeurysis was also resorted to. Our patient was now kept under the effects of powerful opiates and a supporting diet. Her condition grew worse and worse every hour, and her agony was such as to fill with anguish all those who surrounded her. New instruments were devised, constant attempts made to effect delivery, but all that science could suggest and art devise seemed totally inefficient.

On Saturday, at 2 P. M., Dr. La Roche was added to the consultation, and the subject of the Cæsarean section was proposed, considered maturely, and rejected on the following grounds. The greatest authorities who have written upon the Cæsarean operation have considered it to be necessary: 1st. In the case of extra-uterine gestation. 2dly. Where the fœtus has escaped entirely into the cavity of the abdomen on account of rupture of the uterus. 3dly. In the case of hysterocele or hernia of the uterus. 4thly. Where tumours, bridles, cicatrices, adhesions, or other affections of the soft parts included in the pelvis obstruct this bony canal, the neck of the womb, or vagina. Lastly. Where the pelvis is in itself so far defective that there no longer exists between its dimensions and those of the head of the fœtus the relation necessary to delivery. After the most careful examination and consultation, not being able to discover the existence in the present case of any of the foregoing conditions, we deemed that the ethics and the acknowledged rules of practice forbade us attempting the operation. Moreover, it was unanimously agreed that, under Mrs. J.'s present condition of intense constitutional excitement, the operation would be necessarily fatal. We were, therefore, constrained to adopt an expectant treatment and to alleviate her pangs as much as possible, hoping from hour to hour that nature might effect some change in her behalf. Finally symptoms of pyæmic intoxication set in and soon banished from us all hope of saving our patient. The uterine pains continued incessantly up to the period of her death, which occurred on Friday the 25th, at 2 P. M. To narrate her symptoms, to describe her agony, or to express the feelings of those whose sad duty called them to her bedside without the slightest power on their part to relieve or deliver her, would be recalling scenes and pangs which, we trust, our professional career will never cause us again to witness and endure. Suffice it to say that our poor patient died in the violent throes of labour, having suffered uterine pains for ten days and nights with scarce an intermission save the natural intervals between the pains. Those among us who are familiar with the characters of uterine contractions can well imagine the horrors of these ten days of agony to this poor lady, and can well appreciate the gloom and despair of her medical attendants in beholding them.

Post-mortem examination was held nineteen hours after death. Performed by Dr. Ellerslie Wallace, in presence of Drs. Meigs, Hodge, La

Roche, Sr., La Roche, Jr., and Keating. Upon uncovering the abdomen the sulcus in the external portion of the abdominal parietes still quite apparent. On removing parietes of abdomen the uterus presented the sulcus, but higher up than it was externally. There were no signs of parietal or intestinal peritonitis. Uterus $10\frac{1}{2}$ inches long and lying obliquely; above the sulcus measures $7\frac{1}{2}$ inches; at the sulcus 7 inches; two inches below sulcus uterus measured 7 inches. The fœtus had never entered the superior strait, and was in a complete state of decomposition. On removing the uterus it was found that the os uteri was almost cartilaginous in consistency and barely large enough to admit the introduction of two fingers. Upper portions of vagina and lower half of cervix uteri in a state of sphacelus. The tissue of the uterus near the cervix was extremely congested. On opening the uterus the lower globe of uterus was found to be an immense interstitial tumour. (See fig. from a drawing by Professor Meigs) Transverse diameter of the tumour included the whole os uteri; antero-posterior diameter of tumour $5\frac{1}{2}$ inches; vertical diameter $6\frac{1}{2}$ inches. General aspect of tumour ovoidal. Placenta attached to the posterior aspect of the fundus uteri. General surface of the uterus in a complete state of putrescence.

Fig. 1.



Microscopical examination of the tumour by Dr. Da Costa.—I annex the results as embodied in a note to me: "The specimen you sent me for examination was peculiar in several respects, and especially from the fact that the morbid material did not exist by itself, but had become intimately blended with the proper structure of the uterus. Under the microscope I found infiltrated between the smooth muscular fibres of the womb, cells with distinct nuclei, some small, some large, and obscured by granules, but entirely resembling those of cancerous masses. In addition, there were some oil drops and a large number of granules. The muscular fibres were here and there altered in appearance, infiltrated with granules, yet on the whole I was struck with the fact that, whilst so much diseased action had been going on around them, so many of them, by far the largest majority, had remained perfectly unaltered in shape, size, and contents. I have no doubt that the tumour is cancerous; softening had commenced."

The sad result of this case, and the light shed upon it by the post-mortem examination, will undoubtedly suggest to many the propriety, under such circumstances, of resorting to the Cæsarean operation. In answer I would merely recall to your memory the anecdote of Columbus and the egg.

It has undoubtedly created some astonishment in the minds of many here present that this unfortunate lady should have been allowed to die undelivered, especially as the statistics in reference to the Cæsarean section had

in latter days been so favourable. It would be an injustice to myself and respected colleagues did I not recall the fact that with the data before us it was absolutely impossible to anticipate or diagnosticate the nature of the obstruction which we had to overcome. I believe that it must be conceded that the most skilful and experienced acumen in diagnosis might be expected to fail on occasions like the present. To justify a resort to the Cæsarean operation there must be present some of the conditions which I have enumerated in another portion of this paper, failing to discover them, and being convinced that the nature of the obstruction was such as to induce us to hope that it might yield from hour to hour, in the doubt and obscurity in which we were groping, we felt bound to act with that conservatism which eschews all hap-hazard treatment, having neither reason nor experience for its basis. "Melius anceps remedium quam nullum" may be a justifiable apothegm in the judgment of the charlatan, the ignorant, and reckless, but can never prove a safe guide for the conscientious physician. When it became apparent that a delivery, *per vias naturales*, was impossible, the case had already assumed such an aspect from pyæmic intoxication as to render the Cæsarean section not only useless, but, under such circumstances, cruel. It is a sad satisfaction to us, in reflecting over the results of the post-mortem examination, to find that even in this unprecedented case a strict adherence to the rules and ethics of our art has proved the justice and wisdom upon which they are founded.

1861. *Feb.* 6. *Report on Meteorology and Epidemics for* 1860.—Dr. W. Jewell read the following report:—

In offering my report for 1860, I must again acknowledge my indebtedness to James A. Kirkpatrick, Esq., Prof. of Civil Engineering in the Philada. High School, for an abstract of the tables of his meteorological observations during the year.[1] The accuracy of these tables will not be doubted, while their usefulness for present and future reference will not be undervalued.

The following summary of these observations is from his own pen.

The mean temperature of the year (1860) was less than four-tenths of a degree below that of the year 1859, and nearly two-tenths of a degree below the average for the last nine years.

The maximum temperature ($95\frac{1}{2}^{\circ}$) occurred on the 20th of July. The minimum temperature, one degree above zero, was on the 2d of February.

The warmest day of the year was the 20th of July, when the mean temperature was 87.7°. The coldest day was the 2d of February, the mean for that day being 9.2 degrees.

Of the seasons, the spring was one degree warmer, and the summer one degree colder than the average for nine years, while the winter and autumn were very close to the average.

Of the months, the greatest variation from the average was in December, which was nearly 3° colder than usual, and was the coldest December since 1856.

The maximum pressure of the atmosphere (29.418 inches), occurred on the 14th of December; and the minimum pressure (29.099), on the 18th of February. The average pressure was very nearly the same as that for 1859. It may be interesting to notice that the average pressure, as indicated by the mean of the three observations, is very nearly the same as the

[1] Pages 376–7.

mean of the observations at 9 P. M., the difference for the whole ten years being only .002 of an inch.

It is becoming also to inform the college that, in consequence of the inauguration of the new law for the registration of births, marriages, and deaths, which went into operation, under the supervision of the Board of Health, on the 1st of July, 1860, I have rearranged the tables, that they might conform to those published by that Board. At the same time, I have added tables of the births and marriages registered since the law was enforced.

I have also changed the order of grouping the diseases, which order has been faithfully preserved since 1850. This change occurs at a suitable time, as the tables already published by the college embrace a statistical decade from 1850 to 1859, and is well adapted for calculations as to the vital statistics of our city.

No apology need be offered for making this alteration. As a member of the committee "on a uniform plan of registration reports of births, marriages, and deaths," appointed by the American Medical Association, and whose report was adopted by the Association at its meeting in Louisville, Ky., May, 1859, and subscribing cordially to the suggestions therein made, I could do no less, when an opportunity offered, than to follow out my own recommendation for the forms of tables—both as to the classification and nomenclature of the causes of death—which, with but few alterations, are the same as were adopted by the Association in 1847. This favourable opportunity has occurred, and I have embraced it, in framing this report. Another feature herein embodied, and one that modifies the report in several respects, is the reference to the statistics of our total population, as well as of the population of the several wards. This modification has been effected through the operation of the eighth U. S. Census, which was taken during the month of June, 1860.

From the figures, as given by the marshal of this district, I find that he makes our population 568,034, an increase over the population for the census of 1850 of 159,272, or 39 per cent. Should this statement be correct, it gives us an average growth of about 3 per cent. per annum. But the question arises, have authentic returns been received? When we take into consideration, the usual growth of large cities—which will exceed 5 per cent.—the length of time occupied in obtaining the returns—a month—the season of the year—June—when a large portion of our population had left the city for the summer, and the number of houses shut up, where no answers could be obtained, the natural inference will be, that justice has not been done to the vital statistics of Philadelphia. This opinion is by no means peculiar to myself. There are others who have investigated the subject, and are clear in their own minds that the total of population as given in the marshal's returns, is below the actual number, and at variance with facts. But such is the census return, and it goes abroad as correct. During the present decade, therefore, we shall lose the advantage we would otherwise gain from a true record of the number of our inhabitants; unless Councils should determine to have a census taken, in order to place the city, in point of population, where she rightfully belongs, as has been properly suggested by the mayor, for similar reasons to my own, in his last message to that body.

The introduction of the tables of births and marriages, for the last six months of 1860—if not of any practical application at the present time, seems to be proper, in order to preserve an entire uniformity with our new

system of registration, and thus establish a plan after which our vital statistics and our sanitary inquiries may be framed in the future.

From the annual report of the Board of Health I learn that, thus far the law for the registration of births, marriages, and deaths which this college, in connection with the Philadelphia County Medical Society, was instrumental in having enacted, "is popular, and its present success not only affords an evidence of the appreciation in which it is held by the most of those interested, but gives encouragement for its future progress and permanency."

"The registration of the names of all persons who are required to make returns under this law, has been, with a few exceptions, both cheerfully and faithfully complied with by the parties themselves. The necessary register has been alphabetically arranged under three distinct heads, and contains at this time the autographs of 1302 clergymen, physicians, &c., with their respective residences in our city, as follows:—

Clergymen	370
Clerks of the records of religious societies	4
Physicians	701
Practitioners (female) of midwifery	51
Mayor	1
Aldermen	36
Undertakers	79
Superintendents of burial grounds	60
	1302

"Since the law went into effect, up to the 31st of December, 1860, a period of six months, there have been returned and registered 8434 births, 2310 marriages, and 6342 deaths.

"It would be unreasonable to suppose that the statistical contributions, as detailed in these registers, could at this incipient stage of the record be made available, or answer any valuable purpose in reference to the vital statistics of our city. All that is contemplated in this first report, is to furnish an abstract of the returns in tabular form, which will serve as a basis of reliable data for the preparation of future reports. It is only by the accumulation of facts connected with vital and mortuary statistics, during a succession of years, carefully and intelligently collated, and accurately aggregated and compared, that the laws governing human existence can be determined.

"Each new annual report will be entitled to additional consideration from its increased value, arising from the useful information it will furnish to those who shall hereafter engage in the investigation of the science of vital statistics. We trust, therefore, that the inauguration of this new and important system is the beginning of a reform in the science of life in our city, and that this limited contribution may be followed annually hereafter by more extended, more valuable, and more interesting reports."

I have also availed myself of several of the tables, for this report, as compiled by the registration clerks of the health office, because they were prepared according to the instructions of your reporter, and are in conformity with his own views of tabulating and collating the records of births, marriages, and deaths.

Births. — The number of births returned and registered for the six months of the year, under the new law, will be found in Table I. They amount to 8,434. Of these, 4,426 were males and 4,008 females. An excess of male births equal to 10.40 per cent.

In the same table will be found the births that occurred in each of the six months; those in each ward of the city; the population of each ward according to the census returns, together with the percentage of births to population in each ward.

From this we learn that the Nineteenth Ward furnished the highest number of births, viz., 623, and the Eighth Ward the lowest number, viz., 184.

August seems to have been the most prolific month in births, giving 1,575, while December gave but 1,247.

According to the population of the wards, the highest percentage of births must be awarded to the Seventeenth, viz., 456, or 1.95 per cent., and the lowest to the Eighth, viz., 184, or 0.66 per cent., while the ratio of births to population in each ward is in favour of the Seventeenth, which yielded 1 in every 51.

The registration of births of coloured children, amounting to 148—82 males and 66 females—can hardly be relied upon for its correctness, as I have reason to believe that the colour in every instance has not been designated.

Fifty-seven cases of twin births were registered, and there was one instance of triplets.

The month of August yielded 15 cases of twin births, December 11, July 10, November 9, September 7, and October 5.

As an evidence of the estimation in which the registration law is held by those who are required to make returns of births, there were only 155, or less than 2 per cent. returned without the location being designated.

If the returns of births made for the last six months are to be considered as the half of those that have occurred for the year, they would give a total of 16,868, which is equivalent to 1 in every 35 of our population, allowing that our population is equal to 600,000 instead of 568,034, as given by the census. These returns are a more favourable indication of the general hygienic state of the city than has ever before been shown by our birth statistics.

The stillborn children for the six months numbered 347—208 males and 139 females—an excess of 69 male births, equal to 50 per cent. The stillborn are included in the general table of births, according to the recommendation of the American Medical Association. They were in the proportion to the living births as 1 in every 24, or 4 per cent.

Marriages.—Since July 1st, the number of marriages registered under the new law amounts to 2,310. See Table II.[1]

Of the number registered, 2,371 of the parties were Americans by birth, and 1,961 were born in other countries. The birthplaces of 288 were not given.

Of the married couples, 1,138 of the grooms, or 49 per cent., were born in the United States; 1,025, or 44 per cent., were of foreign birth, and of 147, or 6 per cent., the birthplaces were omitted.

Of the brides, 1,233, or 53 per cent., were native born; 936, or 40 per cent., were of foreign birth, and 141, or 6 per cent., were registered as unknown.

The instances in which American men married American women were

[1] This, however, cannot be considered a correct estimate of the marriages in our city. That it falls short of the true number I have not a single doubt; at the same time it must be received as a fair beginning for the inauguration of a law which judging from the returns, has but few friends among the clergy.

999, or 43 per cent.; while those cases where both parties were of foreign birth amounted to 801, or 34 per cent. of the whole.

Only 125, or 5 per cent. of American men married women of foreign birth, while 220, or 9 per cent. of American women were united to foreigners.

Table III. gives the ages of the parties married. Of the grooms, only 10 were under 20 years of age; 834, or 36 per cent., were between 20 and 25 years; 635, or 27.35 per cent., between 25 and 30 years; 433, or 18 per cent., between 30 and 40 years; and beyond that period of life there were 154, while of 244 grooms the age has been omitted.

Of the brides, 464, or 20 per cent., were under 20 years of age; 948, or 41 per cent., between 20 and 25 years; 369, or 16 per cent., between 25 and 30 years; 217 between 30 and 40 years; beyond that age there were only 60 registered according to age, while in 252 of the marriages the ages of the brides were not given.

The greatest inequality of ages was presented in the marriage of a groom between 60 and 70 to a bride between 20 and 25 years of age.

There were 8 grooms registered under 20 years of age. One groom was 18 and his bride 17 years of age.

The popular age for marriage, according to this table, is between 20 and 25 years. The second favourite age, with females, is under 20; but with males, between 25 and 30 years.

Mortality of Philadelphia.—Herewith will be found a general summary of deaths for the year. It is so divided or classified as to show at a glance the white and coloured, the male and female, the adults and minors, those deaths from actual disease, and those from accidental or other external causes.

General Summary of Deaths.

Total number of deaths reported for 1860		11,568
White	10,949	
Coloured	619	
Total		11,568
Males	6,109	
Females	5,459	
Total		11,568
Male minors or children	3,594	
Female " "	3,125	
Total minors		6,719
Male adults	2,515	
Female adults	2,334	
Total adults		4,849
Deaths from registered diseases	10,055	
Deaths from stillborn	719	
Deaths from old age	213	
Deaths from unknown external and accidental causes	581	
Annual total of deaths from all causes		11,568

According to the above summary, the deaths for the year, from Dec. 31, 1859, to Dec. 29, 1860, amount to 11,568.

This mortality shows an increase of 1,826, or 18.74 per cent. over that for 1859.

This augmentation in our mortality may be ascribed principally to the increased force and diffusion of certain diseases; while the improved system

of collecting the deaths under the registration law, which has been in operation since the first of July, has no doubt furnished us with more correct returns.

It is well understood that during 1859 our city was favoured with a remarkable degree of health. The deaths were 9 per cent. below those of 1858, and 12.19 per cent. below the average of deaths for the previous four years.

Nor did it create any surprise that the correctness of the returns for that year as presented in my report to the College, should be questioned by statisticians abroad. And notwithstanding there may be causes that have been developed since the new law of registration went into operation to account in some measure for the limited returns of deaths in 1859, still, when I consider that the mortality was 12 per cent. below that of the average of deaths for the preceding four years, which deaths were returned under the same law, and when I know, from a comparison of the records for 1859 and 1860 that there has been an increased force and diffusion of certain diseases during the latter year, I am not prepared to ascribe either the limited number of deaths in 1859 altogether to defective returns, or the augmentation of deaths in 1860 altogether to the improved system under the new law.

An examination of the returns for the first six months of 1860, which were made under the old law, shows an increase of 7.55 per cent. over those for the same period in 1859; while the deaths in this latter year were 9 per cent. less than those in 1858; and when I discover that the deaths from diphtheria and scarlet fever in the last six months of 1860 have increased 343 per cent. over those for the last six months of 1859, I cannot be forced to the conclusion that the augmentation of deaths in 1860 is attributable to the defective returns under the old law.

If I have been led into any error in my calculations for 1859, it must be ascribed to the circumstance of overrating the population, an error into which statisticians in large cities have been sometimes led.

Of the total of deaths 6,109 were males and 5,459 were females; an excess of male deaths equivalent to 12 per cent.

The mortality among minors, or those under twenty, was 6,719, while that of adults was only 4,849; an excess of deaths equal to 38.35 per cent. of the former over the latter.

The mortality of children under five years of age as compared with the total mortality was 5,704, or 49.30 per cent. This heavy and frightful mortality during infancy is no more peculiar to our own than to other large cities. Viewed in a sanitary aspect, there is much in this pressure on infant life worthy our consideration.

It is scarcely a matter to be questioned, because acknowledged by all who have investigated the subject, that one of the principal causes for this enormous death-rate of our infant population is the unhealthy condition of the atmosphere we breathe. Nor is it less obvious that the catalogue of diseases to which the deaths among children are assigned, embraces chiefly that class called preventable, or those depending upon local and removable causes.

In Table IV. will be found the record of deaths from Dec. 31, 1859, to June 30, 1860. This period terminated the existence of the system of collecting and recording the deaths and births under the old health law of

1818. It tabulates the number and causes of death, with the sexes, and periods of life when they occurred, for the first six months of the year.

Table V. gives the deaths, under the new law, for the past six months, with the sexes, the adults and minors, as also the several periods of life when the deaths occurred, and the total number deceased for each term designated.

Table VI. furnishes the wards, with the number of deaths in each ward from the several diseases named, together with the deaths from the Almshouse, the country, and those among the people of colour, with the nativity of the deceased. It will be observed that 4,888, or 77 per cent., of those who died were born in the United States, those of foreign birth amounted to 1,096, or 17.28 per cent., and of unknown nativity there were registered 358, or 5 per cent. This table also gives the population of each ward, together with the ratio of deaths to population, and percentage of deaths in each to the total mortality for six months.

The heaviest mortality according to population was in the Fourth Ward, equal to 1 in every 61; the next highest was in the Second Ward, 1 in 69. In the Seventeenth Ward the rate of deaths stood 1 in 76; in the First Ward 1 in 83; in the Third Ward 1 in 84; and in the Seventh and Nineteenth Wards 1 in 87.

In most of these wards, where the mortality has been the heaviest, an explanation for the high death-rate will be found in the character of a part of the population, the manner in which they live in crowded apartments in narrow streets, blind courts and alleys, amid dampness and filth, without sufficient light and ventilation, badly fed and clothed, and subjected to other defective sanitary arrangements. Whereas, in other wards, where the population was proportionably large, but less crowded, and enjoying more of the comforts and conveniences of life, with an adequate supply of light, and sufficient ventilation, the death-rate was comparatively low. For instance, in the Thirteenth Ward, where the population rated 20,132, there were only 123 deaths, in the ratio of 1 death to every 163, or 2 per cent. of deaths to the total mortality; while in the Fourth Ward, already alluded to, where the population was but 23,633, there were 385 deaths, or 1 to every 61 of its inhabitants, and equal to 6 per cent. of the total mortality! Such is the contrast, in the mortality of our city for the last six months of 1860, between a favourable and unfavourable sanitary district.

Similar comparisons may be instituted between the healthy and unhealthy states of other wards by a reference to the table.

Table VII., Class I. Zymotic or Epidemic Diseases.—Adopting the classification of diseases as recommended by the American Medical Association, I now refer to those deaths which come under that division called Zymotic, and which have an epidemic, endemic, or contagious character.

By a careful investigation of the death-roll, it will be found that this class of diseases, which depend upon the altered condition of the atmosphere, and upon local causes, either for their existence or their fatality, are among the most active in swelling our bills of mortality. The total number of deaths from this class during the year amount to 2,275, or 22.62 per cent. of the deaths registered from diseases, or 1 in every 5 of the total mortality. Class I. holds, therefore, an important place in the mortality record of our city, furnishing a heavy percentage of the deaths; while at the same time it is capable of demonstration that this form of

disease is fostered by predisposing causes which in a great measure are capable of being removed by sanitary police regulations.

In this class will be found those diseases which press heavily on infant life—and they are mostly the result of causes that are local and removable, of an endemic and avoidable origin. The extent of mortality among minors, in this class, over adults, is equal to 362.4 per cent., or more than 4 of the former to 1 of the latter. An improvement in the sanitary condition of our city will diminish the annual death-rate from zymotic diseases. In evidence of the correctness of this opinion, an examination of the record will show that the highest mortality from such diseases has been in our densely populated wards, and those which are not favoured with advantages that have a direct tendency to mitigate the destructive influence of the cause or causes of epidemic and endemic diseases.

Cholera Infantum, a disease peculiar to cities, and confined to the summer months, destroyed 514 children. The heaviest mortality since the operation of the registration law, July 1st, was in the Nineteenth, Seventh, Fourth, Third, Twentieth, and Seventeenth Wards, in the order in which they are named. It is well known that these wards are overcrowded and contain localities which are badly ventilated, maintain a squalid population, and are peculiarly adapted to invite and determine the onset of disease. Nevertheless, cholera infantum is on the decline in our city; and, while I admit that the deaths from it have increased 26 per cent. over those for 1859, still if the average for the last four years be taken, it will furnish the evidence that I am correct. Nor can this mitigation of a fatal disease among children be attributed so much to an improved condition of the localities where it has been too often a familiar visitant, as to those advantages alluded to in my last year's report, which are afforded the population of our crowded courts and narrow alleys for securing a change of air by means of the numerous city railroad conveyances that safely glide in every direction through our streets, at all hours of the day.

In this connection I embrace the opportunity of expressing my thanks, as a sanitarian, to our city authorities for the liberal measures they have devised to improve the several grounds at Fairmount, more particularly those of Lemon Hill and Sedgely Park. As a public provision for the security of the health, as well as for the enjoyment of the masses, these pleasure grounds cannot be too highly prized. With the facilities for reaching them from all points of the city, that portion of our population whose circumstances restrict them to a residence in crowded and pent-up localities, where the air does not circulate in its purity, have herewith afforded them a healthful resort. Here wornout wives and enfeebled children can enjoy a pure atmosphere during summer's heat, and pass away hours watching the romantic Schuylkill, as its silvery stream winds along the western slope of the park, or strolling through shaded groves and walks adorned with luxuriant foliage. The establishment of these parks for the people is a great sanitary movement on the part of the authorities, but it is not sufficiently appreciated by the community. What by many is considered to be a lavish waste of public funds in appropriations for the embellishment of these great lungs to the city, is, if rightly viewed, a public saving—a gigantic sanitary protection against the inroads of pauperism—a check upon sickness among the working classes; it becomes indirectly a benevolent provision for the security of the public health, and thus adds to the vital prosperity of our population.

In my report for 1859, I intimated the existence of indications that

before a great while we might have to combat with diphtheria—a prognostication that has to a large extent been realized during the year 1860, the deaths having amounted to 307. This mortality, as shown by the record, has observed a gradual increase for each successive quarter, as follows: 1st quarter, the deaths were 36; the 2d, 57; the 3d, 75, and the 4th, 139. During the last six months of the year, the heaviest mortality occurred in the first four wards of the city, amounting to 49. The 18th, 19th, and 20th wards furnished 43 deaths, the 14th and 15th wards added 28, while the 7th ward gave 11 deaths. These wards are densely populated, and in all of them may be found locations peculiarly adapted to the propagation of epidemic diseases, from their low hygienic condition. At the same time, it is but proper to state that cases of diphtheria, and many of them resulting in death, have been quite prevalent in the more salubrious, elevated, and well ventilated sections of the 14th and 15th wards, where it would be less likely to spread through infection or contagion.

Of the deaths recorded for the whole year from diphtheria, 142 were males, and 165 females, an excess of 16.33 per cent. of females. Among adults, there were only 12 deaths, the remainder, 295, were under twenty; of these, 37 were under 1 year; 56 between 1 and 2 years; 116 between 2 and 5 years; 68 between 5 and 10 years, and 18 between 10 and 20 years. The heaviest mortality was in children between 2 and 5 years of age, equal to 164.6 per cent. of the deaths from diphtheria.

Both the character and treatment of diphtheria have been subjected to a wide difference of opinion in medical circles during the past few years. The manner of its propagation—whether by direct contagion, or infection through an aerial poison; whether it can be conveyed by the clothes of an individual visiting a diphtheritic patient; whether it is epidemic, endemic, or sporadic; whether it is a new or old disease; whether it is scarlet fever or croup, or whether a disease of a specific origin, or of the blood, or one of local inflammation—has been frequently discussed. Some view it as scarlet fever, while others look upon it as croup.

That it bears a close resemblance to both of these diseases, cannot be denied; but I am far from believing that diphtheria, as it appeared in our city during 1860, is identical with either the one or the other. When I have witnessed fatal cases of the disease without the croupal cough, or laryngeal inflammation; when I have seen a child die of diphtheria that, one year previously, had scarlet fever in its most malignant form; and when I have seen both scarlet fever and diphtheria side by side in two children of the same family, presenting no identity, except in their fatal termination in a few days, exhibiting in the one case the laryngeal diphtherite, and in the other the true characteristics of congested scarlet fever, of a most malignant type, I am sure not to err, if I decide that they are not the same disease.

I am aware of the close resemblance between diphtheria and scarlet fever, and I am sensible, also, that in expressing an opinion as to the specific nature of the former to that of the latter, I am running a tilt against the judgment of high authority. That the close analogy of the two diseases, and their occasional complications, may lead to error in diagnosis, I can readily admit, and believe that one has often been treated for the other; and where the two diseases prevail simultaneously—as they have done during the year 1860—much confusion may arise, in designating their true character, especially where many of the symptoms differ but slightly. Nevertheless, there is a distinct line of demarcation by which the identity of diphtheria can be recognized.

I have at the present time a grave case of diphtheria under treatment. The fauces, the pituitary membrane, the pharynx, and œsophagus, were all affected with inflammation, as far as could be seen with the eye, followed by an exudation of a grayish-white lymph, accompanied with epistaxis, and an asthenic condition of the system. It is now in the third week, and although the patient is slowly recovering, there is extreme prostration of the vital powers, amounting almost to paralysis, particularly of the organs of deglutition, which, by some authors, is looked upon as a pathognomonic symptom of diphtheria; yet in this family, where there are seven children, only two of whom have had scarlatina, not a case, up to this date, has occurred of either disease, although the surrounding circumstances would lead to the inference that if it were scarlatina, or even a contagious disease, one or more of the family would have been attacked. I have no belief, therefore, in its contagious character. As an epidemic, the disease may be communicated through an atmospherical poison. Nor am I willing to convey the idea, that in my practice, I should act as if it were contagious. Passing through numerous cases of the disease during the year, I have not observed a single instance wherein a materies morbi was developed, that reproduced itself.

If diphtheria does bear an analogy to croup in the fact of an adventitious membranous deposit upon a mucous surface, it is well authenticated that this formation commences in the fauces, and may extend to the larynx, while that of croup invariably shows itself, and is confined to the larynx and trachea. Diphtheritic croupal symptoms are secondary, or accidental, while, according to Dr. Pepper, laryngeal or true croup is a primary affection. I have no question as to the distinct character of the two diseases.

The treatment of diphtheria has been the subject of much diversity of opinion. It is, however, almost unanimously conceded that both a local stimulative and a sustaining treatment is required from the very commencement of the attack, especially in those forms of the disease that have appeared in our city, where an asthenic condition was a marked characteristic.

Scarlet fever has been very prevalent during the year. The deaths amount to 591; this is an increase over those for 1859 of 359, or 154 per cent., and furnishes a considerable item for the increase of the year's mortality, especially during the last six months, over that of 1859. Since the 1st of July, the first four wards, the 7th and 19th, have furnished 55 per cent. of the deaths for the six months. The character of the population, in many parts of these wards, their crowded and defective sanitary condition, to which I have already alluded, will explain the wide-spread prevalence of the disease, and its fatality in those sections of the city.

Smallpox has been on the increase during the year; 57 deaths have been recorded. Of these, 43 were in the last quarter. Nearly all of them, that is, 50 to 7, were in children. 15 of these deaths occurred in the 17th ward; 5 in the 1st, and 6 in the 4th ward; the remainder were scattered over nine of the remaining wards. The disease has been quite prevalent in the 17th ward, where it first made its appearance.

It is a fortunate circumstance that the new ordinance for public vaccination has been in operation during the last six months, in which period 3032 children have been reported as successfully vaccinated. Hundreds of these children would otherwise have met with an untimely death, especially in the 17th ward, where 558 were vaccinated. Nor is it presumptuous to say that, to the neglect of the proper administration of this prophylactic, both on the part of the public authorities for a number of years, and of

those parents who refuse to have their children vaccinated, must be attributed the amount of smallpox prevailing in our city at this time. On this subject, I cannot do better than to repeat the views expressed by me in another place, on the gratifying improvement in the system of public vaccination. Believing it to be only one step forward, I have remarked—and every intelligent medical man will surely indorse the sentiment—that "a still higher standard, embracing more adequate provision, is demanded, before a perfect report of the successful state of vaccination in our city can be exhibited. The ordinance now in force is purely benevolent in character, and strictly voluntary in its import. It offers gratuitous vaccination to every individual, and provides an easy method to secure the gift. Unfortunately, however, what with apathy and indifference with some, and prejudice on the part of others, this inestimable sanitary blessing is too often refused, to render it an entire security against the introduction of smallpox.

"What we require, is a compulsory system, under legal enactment, imposing a penalty for disobedience to its provisions, requiring every child born, or brought into the city, to be vaccinated, and making it an imperative obligation that satisfactory evidence of vaccination shall be given as a prerequisite for admission of children into our public schools. This law, in order to operate effectually, should apply to our entire State."

The deaths from enteric or typhoid fever were 213, and they have fallen off 20 per cent. from those of 1859. The miasmatic fevers recorded are so limited in number as not to require any special notice, further than the remark that, for the last few years typhoid fever, from its prevalence, seems to have become the ordinary endemic of the city instead of miasmatic fevers.

Measles, among the exanthemata, has fallen off 73 per cent., only 15 deaths having been recorded.

Dysentery furnishes 178 deaths; it has increased 38 per cent. over those for 1859.

Four deaths from cholera, and 24 from cholera morbus are recorded. The four deaths from cholera were in the third quarter; three of them occurred in the Seventh, Tenth, and Nineteenth Wards.

A single death is registered Typhus Icterodes or Yellow Fever. This case was in the month of September, in the person of a German labourer, about 40 years of age, residing in a German boarding-house on Front near Coates Street. He was employed in unlading rafts at Green Street wharf, and had not been absent from his work the whole season. Throughout the entire week he laboured in the docks during all stages of the tides, and the hottest hours of the day, subjected to wet feet, and exposed at low tide to the offensive and noxious exhalations emanating from the mud and filth of these unhealthy localities. The case occurred under circumstances that forbid the possibility of referring it to a foreign origin. It was a sporadic instance, from a local cause, terminating fatally on the 8th day from the attack. No other case occurred in the neighbourhood. Of its being genuine yellow fever not a doubt was expressed by any one who saw it, and the post-mortem revelations confirmed the diagnosis.

Table VII., Class 2. General or Uncertain Seat.—The deaths from diseases of this class, or those whose seat is of variable, uncertain, or doubtful location, amount to 1656. Debility, which is only a condition of the system the result of disease, having no definite meaning, and should seldom

if ever be applied as the cause of death, furnished 538 of the number; while marasmus, otherwise atrophy, and having a very general meaning in death certificates, gave 478—making up 1016, or 61.3 per cent. of the deaths in this class.

Table VII., Class 3. Diseases of the Nervous System.—They number 1,966; of these, 980 were in the first six months, under the old law, and 986 in the last six months, under the new law. They constitute 19.5 per cent. of all the deaths from registered diseases.

1,240, or 63 per cent. of the deaths in this class, were in children under 10 years of age; of these, 513 are recorded under convulsions, and 266 from inflammation of the brain.

Apoplexy and palsy, two diseases which almost invariably are related as cause and effect, produced 273 deaths; the former 143 and the latter 130. The increase over those for 1859 is 41 per cent. 157 of the deaths were recorded as disease of the brain; but what particular disease, whether epilepsy, dropsy, inflammation, or mania, is not given.

22 deaths are reported from epilepsy—13 males and 9 females. Contrary to some authorities, the excess is with the males.

Table VII., Class 4. Diseases of the Organs of Respiration.—The deaths under this head foot up 2,975—a higher number by 20 per cent. than the deaths from zymotic diseases.

The deaths from consumption alone amount to 1,622, or 55.6 per cent. of the whole class. For the first six months, under the old law, the deaths from diseases of the organs of respiration exceeded those for the last half of the year, under the registration law, by 337, or 25 per cent. The excess of deaths among males from this class was 89—equal to 6 per cent.

The deaths from inflammation of the lungs were 502. In the two last quarters of the year, under the new law, they amounted to 191. Of these deaths 81 were in the first seven wards of the city. The Second Ward yielded 21 deaths, the Seventh 17, and the Fourth 16. These wards are more unfavourably arranged and populated for the security of health than any other wards in our city.

The deaths from consumption, viz., 1,622, are nearly 8 per cent. above those for 1859, and a fraction below those for 1857 and 1858.

Of the sexes, the excess of deaths is on the side of females—say 6 per cent. As usual, this disease is the cause of a heavy amount of our mortality, constituting 16 per cent. of all the deaths from registered diseases. To the population, according to the last census, they are as 1 to every 350, or 2.85 in each thousand.

The decade of life between 20 and 30 contributed the highest number of deaths, viz., 538, or 33 per cent. The heaviest monthly mortality for the year appears to have been in February, 176; while November gave the least, viz., 106. The previous year November rated the highest.

Of those deaths registered since July 1st, viz., 792, 419, or 53 per cent., were native born, and 285, or 36 per cent., were of foreign birth. Of the remaining number the nativity was not given.

Of the wards during the above period, the Seventh, a densely populated ward, contributed the heaviest mortality, viz., 48; the Second and the Nineteenth each 45; the First Ward 39, and the Fifth 37; the Twenty-first, a rural ward, gave only 14 deaths; the Twelfth furnished 15; the Eleventh and Thirteenth each 16. These three wards contain a medium population, while the Thirteenth rates the healthiest in the built-up portions of the city,

and is equal in salubrity, according to the register for the last six months, to the Twenty-first or rural ward.

As alluded to in my former reports, croup is steadily on the increase. During the year 354 deaths have been recorded from this enemy to childhood—an increase of 42, or 13 per cent. over those for 1859. It furnished 16.60 per cent. of the diseases of the organs of respiration. The highest number occurred in the first quarter, embracing the colder months, amounting to 127. The lowest number was in the third quarter, viz., 46.

Table VII., Class 5. Organs of Circulation.—The diseases belonging to this class contribute 350 deaths to the annual mortality—166 males and 184 females.

Under the general term Disease of the Heart there are 287 deaths registered, making 79 per cent. of the total. Of these 135 were males and 152 females. The remaining number, 63, specify the particular name of the cardiac affection, from which death occurred.

Table VII., Class 6. Organs of Digestion.—The deaths from the organs of nutrition amount to 582, or 5 per cent. of the mortality for the year—310 males and 272 females. The highest number of deaths are returned in the third quarter, viz., 209. The first quarter gave only 100 deaths. The most prominent disease in the catalogue is inflammation of the stomach and bowels, which returns 279 of the deaths. Inflammation of the liver caused 73 deaths.

Table VII., Class 7. Diseases of the Urinary Organs.—This class of diseases caused 80 deaths in the year; of which 50 were males and 30 females. 43 of these deaths were under the general term Disease of Kidneys.

Table VII., Class 8. Organs of Generation.—The diseases belonging to the generative system claim to have given 112. All of them except 3 were among adult women. Puerperal fever contributed 47—nearly one-half the deaths. The first quarter of the year gave 22, and the second 13 deaths. During the last six months there were only 12 deaths. Cancer of the uterus supplied 41 deaths—less by 11 than those for 1859.

Table VII., Class 9. Organs of Locomotion.—This class returned 55 deaths. Of these 22 were from rheumatism, and 26 from disease of the spine.

Table VII., Class 10. The Diseases of the Integumentary System gave only 2 deaths during the year—1 from eczema and 1 from elephantiasis.

Table VII., Class 11. Old Age foots up 213 deaths, 73 males and 140 females. As in all vital statistics, the excess of longevity is on the side of females. In this instance 91 per cent. were females. 19 of the deaths were between 90 and 100 years of age, and 4 were over 100 years.

Under this head, "Old Age," is to be found a convenient hiding-place for the difficulty ascribed by some in securing a true diagnosis of the diseases of aged people. The term is entirely without meaning, and for all practical or statistical purposes would answer as well if incorporated under the heading "Unknown," Class 13, which gives 134 deaths, and is another convenient term employed in too many instances, as in the case of "Old Age," to save the trouble of a careful investigation in order to ascertain the true cause of death.

Table VII., Class 12. External Causes.—The deaths from external, accidental, or violent causes always make up a considerable percentage of the annual mortality. For 1860 they amount to 447, or 4 per cent. of the deaths from all causes.

The great disparity of deaths in this class between the sexes has not escaped observation. Those under consideration show an excess of male deaths equal to 160 per cent. The male deaths were 323; while those in females were but 124. This inequality may be ascribed to the difference in occupation with the sexes, and therefore men are far more exposed to danger than women.

The stillborn (Class 14) children for the entire year, as registered, amount to 719—an increase of 61, or 9 per cent. over those for 1859. This increase will be found in the first six months of the year, rather than in the last semi-annual period under the new law. They constitute 6 per cent. of the annual mortality.

General Abstract of Meteorological Observations, made at Philadelphia, Pa., during the year 1860.

By James A. Kirkpatrick, A. M., Prof. of Civil Engineering in the Philadelphia High School.

(Barometer fifty feet above high water in the Delaware River.)

1860.	Thermometer.									Barometer Reduced to 32° F. But not corrected for altitude.							
							Range.		Mean of daily oscillations.						Range.		
Months.	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Monthly.	Mean daily.		7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Monthly.	Mean daily.
	°	°	°	°	°	°	°	°	°	inches.	inches.	inches.	inches.	inches.	inches.	inches.	Inches.
January . . .	28.89	38.37	32.97	33.41	58	3½	54½	6.5	14.8	29.970	29.915	29.938	29.941	30.399	29.593	.806	.159
February . . .	27.24	38.07	31.69	32.33	70	1	69	8.8	17.8	29.970	29.885	29.918	29.924	30.358	29.099	1.259	.209
March	38.15	52.34	43.71	44.73	73	25	48	5.4	18.3	29.829	29.757	29.795	29.794	30.224	29.499	.725	.133
April	43.96	56.56	47.92	49.48	81	29	52	7.4	18.9	29.849	29.794	29.830	29.824	30.303	29.319	.984	.166
May	59.66	71.03	61.57	64.09	90	44	46	5.2	17.2	29.828	29.787	29.815	29.810	30.050	29.479	.571	.100
June	67.70	78.38	69.05	71.71	93	52	41	4.2	18.9	29.757	29.719	29.745	29.740	30.123	29.243	.880	.088
July	72.50	83.89	74.34	76.91	95⅛	57	38⅛	5.0	19.8	29.811	29.774	29.787	29.791	29.979	29.495	.484	.112
August	70.13	82.87	73.29	75.43	95	55	40	3.8	18.8	29.848	29.813	29.834	29.832	30.026	29.632	.394	.090
September . . .	60.28	73.17	64.02	65.82	92	42	50	5.2	18.2	30.003	29.965	29.998	29.989	30.313	29.597	.716	.143
October	51.58	63 29	55.61	56.83	79	36	43	5.8	16.1	29.963	29.906	29.938	29 936	30.275	29.312	.963	.119
November . . .	43.30	50.53	45.33	46.39	80	16	64	5.5	14.4	29.821	29.773	29.792	29.795	30.305	29.248	1.057	.197
December . . .	29.32	35.65	31.82	32.26	50	13½	36½	5.0	12.2	29.937	29.911	29.958	29.936	30.418	29.285	1 133	.196
Annual means .	49.39	60.35	52.61	54.12	95⅛	1	94⅛	5.6	17.1	29.882	29.833	29.862	29.859	30.418	29.099	1.319	.143
Winter	28.93	37.64	32.18	32.91	71	1	70	7.9	15.6	29.960	29.902	29.929	29.930	30.399	29.099	1.300	.189
Spring	47.26	59.98	51.07	52 77	90	25	65	6.0	18.1	29.835	29.779	29.813	29.809	30.303	29.319	.984	.133
Summer	70.11	81.71	72.23	74.68	95⅛	52	43⅛	4.3	19.2	29.805	29.769	29.789	29.788	30.123	29.243	.880	.097
Autumn	51.72	62.33	54.99	56.35	92	16	76	5.5	16.2	29.929	29.881	29.909	29.906	30.313	29.248	1.065	.153
For eight years .	49.69	59.98	53.19	54.29	100⅛	—5⅛	106	5.6	15.0	29.893	29.854	29.877	29.875	30.704	28.884	1.820	.154

Meteorological Observations—Continued.

1860.	Relative Humidity.						Force of Vapour.							No. of days on which rain or snow fell.	Winds.	Clouds. Tenths of sky covered.				Dew-point.					
Months.	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Rain and melted snow.		Monthly resultant; No. of times in 1000.	7 A. M.	2 P. M	9 P. M.	Mean.	7 A.M.	2 P.M.	9 P.M.	Mean.	Max.	Min.
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	inch.	inch.	inch.	inch.	inch.	inch.	inch.							°	°	°	°	°	°
January . .	80	61	73	71 4	95	24	.136	.144	.143	.141	.308	.040	3.351	7	N. 89° 9′ W., 402	6.6	6.4	5.1	6.0	23.43	24.99	24.93	24.45	45.8	—1.5
February . .	74	59	72	68.2	100	35	.124	.154	.150	.143	.434	.024	2.724	7	N. 61° 52′ W., 298	5.3	4.9	4.4	4.9	19.89	24.42	24.79	22.98	55.1	—12.6
March . . .	71	44	61	59.1	97	16	.171	.175	.182	.176	.497	.064	1.323	8	N. 79° 17′ W., 224	6.1	5.5	4.0	5.2	29.48	28.62	30.69	29.60	58.9	8.5
April. . . .	70	50	67	62.5	100	21	.210	.234	.230	.225	.500	.081	3.646	15	N. 88° 36′ W., 250	5.2	5.9	5.2	5.4	34.21	35.91	36.86	35.66	59.0	13.8
May	76	57	76	69.5	94	28	.395	.421	.420	.412	.638	.224	3.589	19	N. 59° 2′ E, 070	7.5	6.7	6.5	6.9	51.83	53 54	53.41	52.93	66.0	37.4
June	68	48	67	61.1	94	26	.467	.464	.480	.470	.804	.211	3.706	10	N. 67° 23′ W., 236	5.9	5.7	3.3	5.0	56.29	56.07	57.04	56.47	72.7	35.8
July	66	43	65	58.4	90	29	.539	.505	.559	.534	.783	.288	0.851	10	S. 70° 1′ W., 135	5.2	5.9	4.0	5.0	60.02	58.29	61.51	59.94	72.0	44.0
August . . .	77	52	73	67.5	94	27	.580	.584	.603	.589	.850	.275	9.260	13	N. 80° 54′ W., 150	5.3	5.7	4.8	5.3	62.54	62.57	63.73	62.94	74.4	42.7
September . .	77	50	72	66.5	93	35	.425	.437	.455	.439	.822	.161	2.907	7	S. 74° 26′ W., 397	6.2	5.0	3.5	4.9	52.85	53.14	54.60	53.53	73.4	29.2
October . . .	80	61	77	72.8	95	41	.321	.363	.354	.346	.639	.172	4.685	13	S. 75° 58′ W., 069	6.4	6.2	5.0	5.9	45.56	48.64	48.33	47.51	66.0	30.8
November . .	76	57	71	68.2	93	35	.234	.228	.236	.233	.568	.058	6.057	12	N. 81° 25′ W., 333	6.4	6.1	4.8	5.8	36.17	35.21	36.44	35.94	62.6	6.5
December . .	79	66	73	72.5	92	38	132	.140	.134	.135	.275	.056	3.301	8	N. 51° 45′ W., 411	6.4	6.9	4.8	6.0	23.67	24.99	24.00	24.22	42.7	5.6
Annual means	75	54	71	66.5	100	16	.311	.321	.329	.320	.850	.024	45.400	129	N. 79° 43′ W., 219	6.0	5.9	4.6	5.5	41.33	42.19	43.03	42.18	74.4	—12.5
Winter . . .	77	63	74	71.3	100	24	.136	.156	.150	.147	.551	.024	9.535	24	N. 67° 50′ W., 289	6.3	6.3	4.8	5.8	22.47	25.55	25.09	24.36	61.7	—12.5
Spring . . .	73	50	68	63.7	100	16	.259	.277	.277	.271	.638	.064	8.558	42	N. 76° 26′ W., 119	6.3	6.0	5.2	5.8	38.51	39.36	40.32	39.40	66.0	8.5
Summer. . .	71	48	68	62.3	94	26	.529	.518	.547	.531	.850	.211	13.817	33	N. 82° 27′ W., 165	5.5	5 8	4.0	5.1	59.61	58.98	60.76	59.78	74.4	35.3
Autumn . .	78	56	74	69 2	95	35	.327	.343	.348	.339	.822	.058	13.649	32	S. 84° 34′ W., 254	6.3	5.8	4.4	5.5	44.86	45.66	46.46	45.66	73.4	6.5
For eight years.	76	58	72	68.9	100	13	.327	.345	.347	.340	1.059	.013	44.692	126	N. 74° 51′ W., 215	5.9	6.0	4.4	5.4		43.74			79.7	—16.5

TABLE I. BIRTHS.—*Table of Births for Six Months under the new Law of Registration, from July 1st to December 31st, 1860, with the Wards, Sexes, and Colour designated, and with Percentage and Ratio of Births to Population for each Ward.*

MONTHS.	WHITE.		BLACK.		STILLBORN.		WARDS.												
	M.	F.	M.	F.	M.	F.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
July	789	710	5	10	..	..	112	79	47	50	31	37	78	34	44	50	47	44	46
August	816	759	15	7	..	..	93	70	54	74	53	35	81	44	28	55	45	40	50
September	734	668	15	4	..	..	67	67	66	57	33	35	65	28	26	41	45	55	33
October	734	640	11	16	..	..	94	73	43	57	47	42	55	22	34	41	42	49	63
November	595	642	19	13	..	..	61	66	37	62	41	26	51	33	27	43	54	38	50
December	658	589	17	16	..	..	70	53	44	57	29	39	31	23	26	39	53	47	46
Total	4,426	4,008	82	66	208	139	497	408	291	357	234	214	361	184	185	269	286	273	288
Population of each ward							37,078	23,097	19,976	23,633	24,885	14,928	31,397	27,811	17,215	21,967	16,717	16,811	20,132
Percentage of births to population							1.34	1.76	1.45	1.15	0.90	1.43	1.14	0.66	1.07	1.22	1.71	1.62	1.43
Ratio of births to population							74.60	56.61	68.81	66 19	106.34	69 75	86.97	151.14	93.05	81.66	58.41	61.59	69.90

MONTHS.	WARDS.											Wards not given.	Total.	Twins.	Triplets.
	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.				
July	60	71	52	97	40	104	103	41	54	60	64	39	1,499	10	..
August	69	81	71	74	63	101	89	52	44	45	83	59	1,575	15	..
September	59	76	52	89	50	111	93	33	42	63	77	20	1,402	7	..
October	58	68	53	69	45	110	80	37	43	57	56	9	1,374	5	..
November	70	80	50	70	52	111	77	40	39	49	69	10	1,337	9	1
December	61	65	49	57	52	86	85	34	34	38	78	18	1,247	11	..
Total	377	441	327	456	302	623	527	237	256	312	426	155	8,434	57	1
Population of each ward	24,336	32,431	20,092	23,328	20,480	39,271	30,152	17,164	17,286	24.093	23,781				
Percentage of births to population	1.54	1.35	1.62	1.95	1.47	1.58	1.74	1.38	1.48	1.23	1.79				
Ratio of births to population	64.55	73.53	61.44	51.15	67.81	63 03	57.21	72.46	67.52	77.22	55.82				

TABLE II. MARRIAGES.—*Number of Marriages Registered under the new Law of Registration, from July 1st to December 31st, 1860; with the Nativity of the Brides and Grooms.*

BIRTHPLACE OF GROOMS.	BIRTHPLACE OF BRIDES.			Total of grooms.
	United States.	Foreign.	Not given.	
United States . .	999	125	14	1,138
Foreign . . .	220	801	4	1,025
Not given . . .	14	10	123	147
Total of brides . .	1,233	936	142	2,310

TABLE III. MARRIAGES.—*Ages of Persons Married, and Recorded for Six Months, under the new Registration Law, from July 1st to December 31st, 1860.*

AGES OF THE MALES.	AGES OF THE FEMALES.								Total of the males.
	Under 20	20 to 25	25 to 30	30 to 40	40 to 50	50 to 60	60 to 70	Age not given.	
Under 20	7	2	...	...	...	...	...	1	10
20 to 25	320	443	54	9	2	...	...	6	834
25 to 30	102	354	143	32	2	...	...	2	635
30 to 40	29	127	143	118	7	1	...	8	433
40 to 50	2	13	24	44	22	2	...	...	107
50 to 60	...	2	4	12	7	4	...	...	29
60 to 70	1	2	...	2	7	4	2	...	18
Age not given	3	5	1	...	...	...	...	235	244
Total of females	464	948	369	217	47	11	2	252	2310

TABLE IV.—*Report of Deaths from different Causes, with the Ages and the Sexes, from January 1st to June 30th, 1860.*

DISEASES.	SEX.				AGES.													ADULTS.	CHILDREN.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.		
Abscess	5	8	2	3	3	..	1	..	..	1	3	2	3	..	..	..	..	..	..	8	5
Anæmia	3	8	2	2	1	1	1	..	..	1	3	2	1	..	..	1	..	..	..	7	4
Aneurism	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..
Albuminuria	2	1	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	3	..
Apoplexy	35	27	1	3	..	1	2	1	..	..	3	7	8	8	14	14	4	..	..	58	4
Asphyxia	3	5	3	3	6	..	..	..	..	..	..	..	..	..	..	1	1	..	..	2	6
Asthma	8	11	5	2	5	2	..	..	..	..	..	1	1	2	5	3	..	..	..	12	7
Burns	18	23	15	13	10	8	10	..	..	..	5	3	3	..	..	1	1	..	..	13	28
Cancer and scirrhus	8	20	..	..	..	..	..	..	..	..	3	4	12	2	4	2	1	..	..	28	..
" of the breast	..	4	..	..	..	..	..	..	..	..	..	..	1	1	2	..	..	..	..	4	..
" " liver	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..
" " stomach	2	5	..	..	..	..	..	..	..	..	..	..	1	2	3	1	..	..	..	7	..
" " uterus	..	28	..	..	..	..	..	..	..	..	4	3	9	8	3	1	..	..	..	28	..
Casualties	48	11	12	3	5	..	7	2	..	1	13	16	5	7	1	1	..	1	..	44	15
Croup	124	85	124	85	37	68	98	6	..	..	..	..	..	..	..	..	..	..	..	..	209
Caries	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..
Congestion of the brain	69	48	38	30	28	17	12	4	2	5	7	13	11	9	5	3	1	..	..	49	68
" " lungs	48	34	33	22	26	10	10	5	2	2	2	4	7	3	8	2	1	..	..	27	55
Cholera infantum	29	29	29	29	50	7	1	..	..	..	..	..	..	..	..	..	..	..	..	..	58
" morbus	..	3	..	1	..	..	..	..	..	1	..	..	1	1	..	..	..	..	..	2	1
Consumption of the lungs	411	419	40	59	11	9	2	10	14	53	268	200	123	73	50	15	2	..	..	731	99
Convulsions	136	138	128	135	159	67	29	4	2	2	2	..	4	2	2	1	..	..	..	11	263
Cyanosis	16	11	16	11	26	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	27
Diphtheria	37	56	37	55	12	14	42	18	5	1	..	..	..	1	..	..	..	..	..	1	92
Diarrhœa	20	26	12	13	17	4	3	..	1	..	3	2	5	2	4	4	1	..	..	21	25
Dropsy of the brain	73	40	70	39	42	31	28	4	1	3	1	..	1	1	..	1	..	..	..	4	109
" " chest	41	46	4	4	..	..	2	4	..	2	7	9	20	12	16	11	4	..	..	79	8
" " heart	4	3	1	1	..	..	1	1	..	..	..	4	1	..	..	..	..	..	..	5	2
Diabetes	2	1	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	3	..
Disease of the brain	39	40	21	20	15	9	8	5	2	2	10	10	7	3	4	3	1	..	..	38	41
" " heart	83	83	19	21	7	1	6	8	6	12	14	18	33	15	26	17	3	..	..	126	40
" " kidneys	10	4	1	1	..	..	2	..	..	..	..	2	2	2	..	6	..	..	..	12	2
" " spine	11	8	4	6	4	1	2	3	..	..	2	1	2	1	2	1	..	..	..	9	10
Drowned	46	4	9	1	..	..	1	3	4	2	10	19	4	4	4	..	..	..	..	41	10
Debility	126	104	61	50	95	8	4	1	1	2	16	12	14	13	29	28	6	..	1	119	111
Dysentery	27	13	19	10	16	7	2	3	..	1	3	..	3	1	2	1	..	1	..	11	29
Dyspepsia	..	2	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	2	..

TABLE IV.—*Report of Deaths*—Continued.

DISEASES.	SEX.				AGES.														ADULTS.	CHILDREN.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	
Effusion of the brain	16	24	13	21	13	11	7	1	1	1	1	1	1	..	3	..	..	..	..	6	34
Epilepsy	10	5	3	3	2	1	1	1	1	..	4	1	1	1	2	..	..	..	..	9	6
Erysipelas	22	25	5	14	9	3	3	2	..	2	8	4	4	3	4	4	1	..	..	28	19
Fracture	3	3	..	..	..	..	..	..	..	..	1	1	1	..	2	..	1	..	..	6	..
Fever, bilious	1	2	..	..	..	..	..	..	..	..	1	1	..	..	1	..	..	..	..	3	..
" continued	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..
" congestive	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..
" gastric	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
" hectic	..	2	..	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	1	1
" intermittent	..	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
" nervous	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..
" puerperal	..	35	..	2	..	..	..	..	..	2	15	17	1	..	..	..	..	..	..	33	2
" remittent	7	4	3	1	..	..	3	..	..	1	2	3	..	1	1	..	..	..	..	7	4
" scarlet	110	96	107	94	26	53	91	23	4	4	2	3	..	..	..	..	..	..	..	5	201
" typhus	6	10	2	4	..	..	1	2	2	1	3	2	2	1	1	1	..	..	..	10	6
" typhoid	43	54	9	21	..	2	8	7	6	7	19	15	11	5	9	6	2	..	..	67	30
Gangrene	4	4	2	4	..	..	3	1	2	..	1	..	..	..	..	1	..	..	..	2	6
Gout	2	2	..	..	..	..	..	..	..	..	..	1	..	..	2	1	..	..	..	4	..
Hemorrhage	9	6	3	2	2	1	..	..	1	1	3	2	1	1	2	1	..	..	..	10	5
" of the stomach and bowels	2	2	1	1	2	..	..	..	..	..	..	..	1	..	1	..	..	..	..	2	2
" " lungs	6	12	2	4	1	3	1	1	..	..	3	4	2	1	2	..	..	..	..	12	6
" " uterus	..	4	..	..	..	..	..	..	..	..	1	3	..	..	..	..	..	..	..	4	..
Hernia	2	4	..	1	..	..	..	..	..	1	1	1	2	1	..	..	..	..	..	5	1
Hooping-cough	18	19	18	19	24	11	1	..	1	..	..	..	..	..	..	..	..	..	..	..	37
Inflammation of the brain	76	61	69	53	48	41	15	12	2	4	2	4	3	..	2	4	..	..	..	15	122
" " bronchi	34	30	20	20	25	6	7	..	1	1	3	4	2	3	6	5	1	..	..	24	40
" " liver	22	18	1	2	..	..	..	1	1	1	8	6	5	10	7	1	..	..	..	37	3
" " lungs	174	137	115	86	102	44	34	11	4	6	19	19	15	16	22	11	5	2	1	110	201
" " larynx	14	13	9	9	3	3	8	2	..	2	2	1	4	1	1	..	..	..	..	9	18
" " pleura	4	5	2	..	..	2	..	..	..	..	1	2	..	1	2	..	1	..	..	7	2
" " peritoneum	7	7	2	1	..	1	..	..	1	1	5	3	2	..	..	1	..	..	..	11	3
" " stomach and bowels	61	53	28	20	35	4	5	1	1	2	13	14	8	17	8	5	1	..	..	66	48
" " uterus	..	7	..	..	..	..	..	..	..	..	4	2	1	..	..	..	..	..	..	7	..
Inanition	40	36	35	28	55	3	4	1	..	..	1	2	2	1	2	1	3	1	..	13	63
Insanity	1	2	..	..	..	..	..	..	..	..	1	..	..	2	..	..	..	..	..	3	..
Intussusception	2	1	2	1	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Jaundice	3	4	1	1	1	1	..	..	..	..	..	..	1	2	2	..	..	..	..	5	2

TABLE IV.—*Report of Deaths*—Continued.

DISEASES.	SEX.				AGES.														ADULTS.	CHILDREN.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 1	100 to 110.	
Mania à potu	50	17	..	..	..	..	..	..	..	..	12	25	21	6	3	..	..	..	..	67	..
Marasmus	71	80	64	71	100	17	10	7	1	..	..	2	3	..	6	2	3	..	..	16	135
Measles	2	3	2	3	1	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Malformation	1	2	1	1	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	2
Mortification	2	..	1	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1
Old age	45	84	..	..	..	..	..	..	..	..	..	..	..	..	2	36	56	23	2	129	..
Palsy	35	28	2	..	..	..	..	2	..	..	1	6	7	11	18	10	5	3	..	61	2
Pyohæmia	4	1	1	..	..	..	1	..	..	..	2	..	..	1	1	..	..	..	..	4	1
Rheumatism	7	3	3	..	..	..	1	1	..	1	1	2	1	1	1	1	..	..	..	7	3
Scrofula	15	8	10	8	7	1	6	1	1	2	2	1	1	1	..	..	..	..	..	5	18
Smallpox	7	3	5	1	2	2	1	..	..	1	3	..	1	..	..	..	..	..	..	4	6
Strangulation	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..
Syphilis	2	2	1	2	3	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	3
Stillborn	192	180	192	180	372	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	372
Sore throat	11	16	10	16	5	7	5	7	2	..	1	..	..	..	..	..	..	..	..	1	26
Suicide	7	2	..	..	..	..	..	..	..	..	4	1	2	2	..	..	..	..	..	9	..
Tabes mesenterica	6	2	5	2	1	1	4	1	..	..	..	1	..	..	..	..	..	..	..	1	7
Teething	11	4	10	4	12	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15
Tetanus	4	5	1	2	1	..	1	..	1	..	3	1	1	..	..	..	1	..	..	6	3
Tumours	3	2	..	..	..	..	..	..	..	..	1	1	1	..	2	..	..	..	..	5	..
Tympanitis	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..
Ulceration	3	..	2	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	2
" of the stomach and bowels	5	4	..	..	..	..	..	..	..	..	1	1	1	1	5	..	..	..	..	9	..
" " throat	1	1	..	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1
" " uterus	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..
Unknown	32	26	9	13	10	8	2	1	..	1	10	8	8	5	3	2	..	..	..	36	22
Worms	..	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Want and neglect	3	4	1	4	5	..	..	..	..	..	..	..	2	..	..	..	..	..	..	2	5
Total, 5,226.	2,708	2,518	1,480	1,315	1,447	500	503	169	73	133	546	498	410	271	311	214	116	31	4	2,401	2,825

TABLE V.—*Deaths for Six Months, under the new Law of Registration, from July 1st to December 29th, 1860.*

DISEASES.	SEX.				AGES.													ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.			
Abscess	12	19	5	12	5	1	3	6	1	1	5	2	3	1	2	1	..	..	..	14	17	31
" of liver	2	5	1	4	2	..	1	1	..	1	1	1	..	..	..	..	..	..	..	2	5	7
Albuminuria	4	2	1	1	..	..	1	1	..	..	..	2	2	1	..	..	..	..	..	4	2	6
Anæmia	1	4	..	3	1	..	2	..	..	..	..	..	1	1	..	..	..	..	..	2	3	5
Aneurism	2	1	..	..	..	..	..	..	..	..	..	1	..	2	..	..	..	..	..	3	..	3
Aphthæ	1	2	1	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3
Apoplexy	49	32	6	3	7	..	..	2	..	..	4	13	10	15	19	7	4	..	..	72	9	81
Asphyxia	10	8	10	8	17	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	18	18
Asthma	8	5	2	..	2	..	..	..	..	..	1	2	..	2	2	4	..	..	..	11	2	13
Cancer and scirrhus	11	15	2	2	..	2	1	..	1	..	..	5	2	6	6	2	1	..	..	22	4	26
" of the breast	..	12	..	..	..	..	..	..	..	..	..	3	1	3	3	2	..	..	..	12	..	12
" " liver	3	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..	3	..	3
" " stomach and bowels	13	9	..	..	..	..	..	..	..	..	..	3	8	4	6	1	..	..	..	22	..	22
" " uterus	..	13	..	..	..	..	..	..	..	..	..	1	4	5	..	3	..	..	..	13	..	13
Casualties	75	13	29	11	10	5	5	9	8	3	13	13	3	9	5	7	1	..	..	48	40	88
Burns and scalds	11	25	9	18	2	3	10	6	1	5	2	3	1	1	..	1	1	..	..	9	27	36
Drowned	70	7	25	4	1	..	2	11	9	6	13	18	10	5	2	..	..	..	..	48	29	77
Exposure	..	4	..	..	..	..	..	..	..	..	1	..	2	..	..	1	..	..	..	4	..	4
Fracture	6	2	..	..	..	..	..	..	..	..	..	1	3	..	2	..	2	..	..	8	..	8
Neglect and want	5	10	3	9	10	1	1	..	..	..	..	1	1	1	..	..	..	..	..	3	12	15
Poisoning	2	2	..	2	..	..	1	..	..	1	..	1	..	1	..	..	..	..	..	2	2	4
Suicide	10	1	2	..	..	..	..	..	..	2	2	3	1	3	1	..	..	..	..	9	2	11
Violence	4	..	..	..	..	..	..	..	..	..	..	2	1	1	..	..	..	..	..	4	..	4
Caries	3	..	2	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	1	3	4
Cholera	3	1	1	..	1	..	..	..	..	..	1	1	..	..	1	..	..	..	..	3	1	4
" infantum	244	212	244	212	340	103	12	1	..	..	..	..	..	..	..	..	..	..	..	..	456	456
" morbus	11	10	4	3	3	1	1	1	..	1	..	3	5	1	2	..	1	..	..	14	7	21
Congestion of the brain	74	63	45	43	36	20	18	9	3	2	11	14	9	6	5	3	1	..	..	49	88	137
" " liver	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
" " lungs	24	23	16	9	18	2	3	2	..	..	5	7	2	2	3	3	..	..	..	22	25	47
Consumption of the lungs	374	418	42	72	13	10	8	10	17	56	270	165	115	70	39	13	5	1	..	678	114	792
Convulsions	123	116	115	108	132	49	30	6	4	2	6	4	2	3	1	..	..	..	..	16	223	339
" puerperal	..	4	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	4	..	4
Croup	94	51	91	49	15	33	69	26	..	..	2	..	1	..	..	..	..	..	..	2	143	145
Colic	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
Cyanosis	13	12	13	12	24	..	1	..	..	..	..	..	1	2	1	1	..	..	..	..	25	25
Cirrhosis	2	3	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	2	..	2
Coup de soleil	2	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	2	..	2
Debility	159	149	87	85	155	8	7	..	..	2	6	13	17	10	33	31	19	6	1	136	172	308
Diabetes	7	1	1	..	1	..	..	..	..	..	1	2	2	..	1	1	..	..	..	7	1	8
Diphtheria	105	109	97	106	25	12	69	54	9	1	5	3	..	1	1	1	..	..	..	11	203	214
Diarrhœa	49	47	29	31	38	17	3	1	..	1	3	4	7	8	8	4	1	1	..	56	60	116
Disease of the brain	51	27	20	16	18	7	5	4	1	1	6	3	9	7	9	6	2	..	..	42	36	78

TABLE V.—*Deaths under the new Law of Registration*—Continued.

DISEASES.	SEX.				AGES.														ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.			
Disease of the heart	52	69	16	25	15	2	3	6	4	11	10	19	7	15	15	11	1	2	..	80	41	121
" " kidneys	16	13	2	2	..	1	1	1	..	1	3	2	6	4	7	2	1	..	..	25	4	29
" " liver	6	1	3	..	2	..	..	..	..	1	..	1	1	..	1	1	..	..	..	4	3	7
" " chest	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1
" " lungs	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
" " throat	1	1	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	1	2
" " spine	2	5	2	3	1	..	..	2	1	1	..	1	1	..	..	..	..	..	..	2	5	7
" " spleen	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
Dropsy (including abdominal dropsy)	33	40	12	9	1	1	10	6	2	1	5	4	6	7	11	9	8	2	..	52	21	73
" of the brain	69	65	68	65	78	36	16	2	..	1	..	..	1	..	..	..	..	..	..	1	133	134
" " chest	35	26	8	6	1	1	4	4	..	4	2	5	5	15	9	9	2	..	..	47	14	61
" " heart	13	15	7	5	..	..	4	5	1	2	4	1	..	6	..	2	3	..	..	16	12	28
Dysentery	73	65	50	38	38	20	22	6	..	2	9	10	6	8	4	6	5	2	..	50	88	138
Dyspepsia	1	1	1	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1	2
Eczema	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Effusion on the brain	17	19	13	16	16	4	6	2	..	1	1	1	3	1	1	..	..	..	..	7	29	36
Enlargement of the heart	1	4	..	1	..	..	..	1	..	..	2	..	1	1	..	..	..	..	..	4	1	5
Epilepsy	3	4	2	2	1	..	2	1	..	..	1	..	1	1	..	..	..	..	..	3	4	7
Elephantiasis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
Erysipelas	18	15	11	6	12	2	1	1	..	1	2	1	7	3	1	..	2	..	..	16	17	33
Fever	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
" bilious	5	4	..	2	1	..	..	1	..	..	1	3	3	..	..	..	..	..	..	7	2	9
" congestive	1	1	1	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
" enteric	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
" intermittent	3	1	..	..	..	..	..	..	..	..	..	2	1	..	..	1	..	..	..	4	..	4
" nervous	..	2	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	2	..	2
" puerperal	..	12	..	..	..	..	..	..	..	..	7	5	..	..	..	..	..	..	..	12	..	12
" remittent	4	3	2	1	..	66	1	..	..	2	2	..	..	1	1	..	..	..	..	4	3	7
" scarlet	193	193	196	192	24	..	199	88	6	2	..	..	..	..	..	..	..	..	..	..	385	385
" typhoid	68	47	25	15	4	..	8	11	5	12	39	15	5	5	5	4	2	..	..	75	40	115
" typhus	14	8	4	4	..	..	1	1	2	4	3	5	2	1	1	2	..	..	..	14	8	22
Fever, typhus icterodes	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1
Gangrene	10	2	4	1	2	..	..	3	..	..	..	2	..	2	1	2	..	..	..	7	5	12
Gout	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	2	..	2
Hemorrhage	12	11	5	4	6	..	1	1	1	..	3	4	5	..	1	1	..	..	..	14	9	23
" of the lungs	7	2	1	..	..	..	..	..	..	..	..	4	1	..	..	1	..	..	..	8	1	9
" " stomach and bowels	1	2	..	1	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	2	1	3
" " uterus	..	4	..	1	..	..	..	..	..	1	2	1	..	..	..	..	..	..	..	3	1	4
Hernia	6	5	..	..	..	..	..	..	..	..	1	..	5	4	..	1	..	..	..	11	..	11
Hooping-cough	7	11	7	11	10	5	3	..	..	..	..	..	..	..	..	..	..	..	..	..	18	18
Inanition	53	34	46	28	65	4	3	1	..	..	5	1	2	..	..	2	3	..	..	13	74	87
Inflammation of the bladder	5	6	..	2	..	..	2	..	..	1	2	2	..	2	..	3	..	..	..	9	2	11
" " brain	82	47	70	39	34	29	27	9	3	7	6	6	5	2	1	..	..	..	..	20	109	129

TABLE V.—*Deaths under the new Law of Registration*—Continued.

DISEASES.	SEX.				AGES.													ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.			
Inflammation of the bronchi	20	23	10	12	11	6	4	1	..	..	..	3	4	3	5	4	2	..	..	21	22	43
" " chest	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
" " larynx	7	4	5	4	2	1	4	1	1	..	1	1	..	..	..	..	..	..	..	2	9	11
" " heart	4	5	2	4	..	..	..	3	2	1	..	1	1	..	..	1	..	..	..	3	6	9
" " liver	16	17	4	1	2	..	..	1	1	1	..	7	4	4	5	4	4	..	..	28	5	33
" " kidneys	3	1	1	..	..	..	..	1	..	..	1	..	..	..	1	..	1	..	..	3	1	4
" " lungs	94	97	56	56	51	19	22	9	3	8	15	16	17	12	7	8	4	..	..	79	112	191
" " peritoneum	25	24	7	3	3	2	1	2	1	1	15	10	7	6	1	..	..	..	..	39	10	49
" " hip	2	1	2	..	..	..	..	1	1	..	..	..	..	1	..	..	..	..	..	1	2	3
" " pleura	4	..	..	..	..	..	..	..	..	..	1	1	1	..	1	..	..	..	..	4	..	4
" " stomach and bowels	87	78	51	42	44	16	16	10	3	4	14	17	14	11	10	3	1	2	..	72	93	165
" " throat	3	1	3	1	..	..	1	3	..	..	..	..	..	..	..	..	..	..	..	..	4	4
" " uterus	..	4	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	4	..	4
" " leg	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Intussusception	3	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	3	..	3
Jaundice	6	4	3	2	4	..	1	..	..	..	..	1	..	4	..	..	..	..	..	5	5	10
Mania	1	6	..	..	..	..	..	..	..	..	2	1	1	2	..	1	..	..	..	7	..	7
Mania a potu	37	13	..	..	..	..	..	..	..	..	5	19	16	8	2	..	..	..	..	50	..	50
Marasmus	193	134	176	127	213	65	18	6	..	1	5	3	6	2	4	2	2	..	..	24	303	327
Measles	6	4	6	4	2	3	3	..	..	2	..	..	..	..	..	..	..	..	..	..	10	10
Old age	28	56	..	..	..	..	..	..	..	..	..	..	..	..	..	24	40	16	4	84	..	84
Neuralgia	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	2	..	2
Palsy	35	32	3	5	2	1	1	3	..	1	3	2	6	7	18	17	5	..	1	59	8	67
Pyohæmia	4	1	..	..	..	..	..	..	..	..	1	1	3	..	..	..	..	..	..	5	..	5
Rheumatism	6	6	2	3	1	1	2	..	..	1	1	1	1	1	2	1	..	..	..	7	5	12
Scrofula	32	16	24	12	13	5	6	2	6	4	7	1	1	3	..	..	..	..	..	12	36	48
Smallpox	22	25	21	23	11	8	15	6	2	2	2	1	..	..	..	..	..	..	..	3	44	47
Softening of the brain	5	1	1	..	..	..	..	1	..	..	..	1	..	2	1	..	1	..	..	5	1	6
Stricture of œsophagus	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1
Stillborn	208	139	208	139	347	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	347	347
Syphilis	1	4	1	3	1	1	1	1	..	..	1	..	..	..	..	..	..	..	..	1	4	5
Tabes mesenterica	13	5	13	5	9	3	4	1	..	1	..	..	..	..	..	..	..	..	..	..	18	18
Teething	13	11	13	11	12	11	1	..	..	..	..	..	..	..	..	..	..	..	..	..	24	24
Tetanus	9	3	1	3	1	..	1	..	1	1	4	1	2	..	1	..	..	..	..	8	4	12
Tumours	3	5	1	..	..	..	..	1	..	..	2	1	3	1	..	..	..	..	..	7	1	8
Ulceration	..	2	..	2	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	2
" of the stomach and bowels	5	5	2	2	..	2	1	..	1	..	..	2	2	1	..	..	..	1	..	6	4	10
" " throat	4	..	4	..	..	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..	4	4
Unknown	45	31	22	18	20	6	6	6	2	..	6	11	7	7	5	..	..	..	..	36	40	76
worms	..	2	..	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Uræmia	1	1	..	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	1	2
Total	3,401	2,941	2,114	1,780	1,941	634	679	364	103	173	563	502	402	325	280	212	125	33	6	2,450	3,894	6,542

TABLE VI.—*Deaths in each Ward from July 1st to December 19th, 1860, with the Nativity; also those from the Almshouse, the People of Colour, and those from the Country.*

DISEASES.	ALMSHOUSE.	PEOPLE OF COLOUR.	COUNTRY.	NATIVITY.			WARDS.																						UNKNOWN WARDS.
				United States.	Foreign.	Unk'n.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Abscess	1	..	..	23	7	1	1	3	..	1	1	..	1	3	1	3	2	..	..	3	1	..	3	1	2	1	..	..	1	2	1
" of liver	..	..	..	6	1	..	1	..	..	1	..	..	..	..	..	1	..	..	..	1	..	..	1	1	1	..	..	..	..	..	..
Albuminuria	3	..	..	2	1	3	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	3	..	..
Anæmia	..	1	1	4	1	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..
Aneurism	..	1	..	2	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Aphthæ	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	1	..	..	..
Apoplexy	1	7	4	51	27	3	7	4	..	2	3	2	5	4	3	7	7	4	1	2	1	2	3	2	2	2	1	5	3	2	3
Asphyxia	..	2	1	18	..	..	2	1	2	..	1	1	1	2	1	..	1	..	1	..	1	..	1	..	..	..	..	..	..	1	1
Asthma	..	1	..	7	5	1	..	..	1	..	4	..	..	1	..	..	..	..	..	1	..	..	..	..	2	..	..	1	1	..	2
Cancer and scirrhus	4	3	1	14	7	5	1	1	1	2	..	..	2	1	..	2	1	..	..	3	1	1	2	1	..	1	..	..	1	4	..
" of breast	2	3	..	7	2	3	1	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	1	..	2	2	2	2
" of liver	..	..	..	2	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
" of stomach and bowels	1	1	..	13	8	1	..	..	..	..	1	2	1	1	..	2	1	2	..	2	1	1	1	..	..	1	1	2	..	3	..
" of uterus	..	1	..	10	2	1	..	..	..	1	..	..	..	2	..	..	..	..	1	2	1	1	1	..	..	1	..	..	1	..	2
Casualties	1	2	3	54	29	5	8	6	2	4	2	3	4	2	3	1	3	..	2	1	5	1	3	2	9	6	4	1	6	3	4
Burns and scalds	1	3	..	28	8	..	4	1	1	1	2	..	8	..	1	1	..	1	..	..	4	2	1	2	1	2	.	1	1	1	1
Drowned	..	1	3	40	19	18	3	3	4	2	6	6	1	3	3	..	4	4	..	2	2	1	..	4	6	2	1	3	1	3	10
Exposure	..	1	..	..	2	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Fracture	..	..	1	1	5	2	..	..	1	1	..	..	3	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..
Neglect and want	1	4	..	12	1	2	..	1	1	3	2	1	..	..	..	1	..	..	..	..	..	..	3	..	..	..	1	..	..	1	1
Poisoning	1	..	1	1	1	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..
Suicide	..	..	1	7	3	1	..	1	..	..	1	1	1	..	1	..	..	..	..	..	..	..	..	1	..	2	..	..	..	..	2
Violence	..	..	..	1	3	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..
Caries	..	..	..	2	1	..	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Cholera	..	..	..	1	3	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
" infantum	6	20	8	447	6	3	30	25	13	28	13	12	32	19	11	16	13	17	7	9	19	13	20	12	46	24	8	18	14	16	13
" morbus	1	..	1	10	9	2	1	2	..	2	2	2	2	1	..	..	..	..	1	..	..	..	2	2	..	..	..	..	..	3	..
Congestion of brain	8	2	2	107	20	10	14	10	6	9	4	1	7	4	1	4	1	3	3	1	5	2	11	7	8	6	3	2	3	13	7
" liver	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" lungs	2	4	..	36	9	2	6	4	1	5	2	1	4	1	..	..	..	..	..	1	1	2	5	3	1	2	..	1	..	4	3
Consumption of lungs	71	63	13	419	285	88	39	45	29	31	37	22	48	24	35	25	16	15	16	24	28	22	35	25	45	35	14	20	24	93	32
Convulsions	6	11	3	225	7	7	18	18	11	12	9	4	8	4	6	6	13	10	9	8	13	9	13	5	23	9	1	3	8	10	6
" puerperal	..	..	..	1	3	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Croup	2	1	2	138	3	4	12	10	4	3	1	7	4	2	4	2	2	5	2	3	11	5	11	9	12	8	4	3	10	8	1
Colic	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Cyanosis	1	..	1	25	..	..	3	2	1	2	2	..	1	1	..	..	2	..	..	2	..	..	..	..	..	1	2	1	2	2	..
Cirrhosis	1	..	..	2	2	1	..	..	..	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	1	..
Coup de soleil	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Debility	21	20	4	221	63	24	21	11	5	18	7	7	18	6	9	13	8	2	6	5	26	10	11	13	23	16	9	8	8	32	12
Diabetes	..	..	1	6	2	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	1	..	..	..	..	..	..	..	..	2	1
Diphtheria	..	2	3	204	7	3	21	10	10	8	6	5	11	5	6	6	6	4	6	18	15	6	5	11	19	13	3	3	5	5	4
Diarrhœa	7	3	2	68	21	7	5	3	2	7	3	..	7	2	2	2	4	2	1	2	5	5	8	4	3	3	1	3	3	14	3

TABLE VI.—*Deaths in each Ward for Six Months*—Continued.

DISEASES.	ALMSHOUSE.	PEOPLE OF COLOUR.	COUNTRY.	NATIVITY.			WARDS.																						UNKNOWN WARDS.
				United States.	Foreign.	Unk'n.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Disease of the brain	8	1	2	55	14	9	1	3	1	2	2	1	8	6	2	2	2	4	1	3	9	4	..	2	4	1	3	..	2	10	3
" " heart	4	9	7	83	33	5	4	2	6	3	6	7	12	5	8	3	3	2	3	5	4	6	2	6	6	5	3	4	3	4	2
" " kidneys	1	..	1	14	13	2	1	2	1	2	2	..	4	1	1	1	1	1	1	..	1	2	2	..	1	1	1	1	..	1	..
" " liver	..	..	1	4	2	1	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	2	..	..	1	..	..	..	1	..
" " chest	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
" " lungs	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" " throat	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..
" " spine	..	1	..	6	..	1	..	..	..	1	..	..	2	..	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	..	1
" " spleen	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dropsy (including abdominal)	..	5	..	46	24	3	7	3	1	7	2	3	4	..	3	3	3	2	2	6	..	1	4	3	4	2	1	4	5	1	2
" of the brain	1	6	..	130	1	3	7	9	5	8	9	1	5	4	4	4	7	2	2	..	7	4	12	7	14	4	8	1	2	2	6
" " chest	1	5	5	46	11	4	4	2	1	2	6	1	2	3	1	3	3	1	2	3	3	2	2	2	4	1	2	1	3	2	..
" " heart	5	1	1	16	4	8	2	..	2	2	1	..	..	..	..	2	..	..	1	..	2	1	..	1	2	1	..	..	..	9	1
Dysentery	6	7	5	104	26	8	5	5	12	7	4	4	4	3	3	1	3	1	..	4	6	9	9	7	9	10	4	7	7	8	1
Dyspepsia	..	..	..	2	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eczema	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Effusion on the brain	1	2	2	30	4	2	1	1	2	2	4	1	2	1	2	3	..	..	2	2	1	..	1	2	..	1	..	2	2	2	..
Enlargement of the heart	..	..	..	2	3	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	..	..	..
Epilepsy	..	..	..	6	..	1	1	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	1	..	2	..	..	..	1	..	..
Elephantiasis	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	..	..	2	29	4	..	5	3	..	1	..	..	2	1	..	1	1	..	2	1	1	2	2	4	3	..	..	..	1	1	..
Fever	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" bilious	..	1	..	6	3	..	2	2	..	..	..	..	1	..	..	..	1	..	1	1	..	..	..	1	..	..	..	..	..	..	..
" congestive	..	1	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
" enteric	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
" intermittent	..	..	..	3	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1
" nervous	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
" puerperal	..	..	..	4	5	3	1	..	..	3	..	..	..	1	..	..	1	..	..	..	..	..	..	..	4	..	1	..	..	1	..
" remittent	..	..	1	6	1	..	..	..	..	..	..	..	..	..	1	..	1	..	..	1	..	..	..	..	..	1	..	..	..	1	..
" scarlet	2	2	7	365	12	8	48	32	30	56	10	6	22	7	7	14	6	11	2	14	6	7	8	11	41	10	1	2	10	9	8
" typhoid	6	4	2	68	41	6	7	8	4	8	3	1	6	4	3	2	4	2	5	4	7	3	3	4	8	6	2	2	3	10	4
" typhus	1	3	1	18	3	1	1	1	1	..	..	1	3	..	2	1	..	1	..	2	..	1	..	1	2	1	..	..	1	2	..
" " icterodes	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gangrene	1	..	..	9	2	1	..	..	..	1	1	..	..	..	..	1	2	..	..	..	..	..	..	1	1	1	..	1	..	3	..
Gout	..	..	1	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hemorrhage	1	2	..	14	7	2	3	1	1	1	3	..	..	1	3	..	1	..	..	1	1	..	..	..	5	..	..	..	1	1	..
" of lungs	..	..	..	4	4	1	..	..	..	..	..	2	..	..	2	2	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..
" of stomach & bowels	..	..	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	1
" uterus	..	..	..	2	2	..	..	..	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Hernia	..	1	1	7	4	..	..	..	2	2	..	..	1	..	1	1	..	..	..	..	1	..	..	..	1	..	..	..	..	1	..
Hooping-cough	..	3	1	18	..	..	1	..	..	..	1	1	1	..	..	1	2	..	2	..	1	2	1	1	..	1	..	1	..	1	..
Inanition	12	1	2	74	10	3	7	9	4	9	1	1	2	4	2	3	1	1	2	1	4	..	2	3	6	4	..	5	..	12	2
Inflammation of bladder	..	2	..	1	2	1	2	..	2	..	..	..	2	..	..	..	..	..	..	1	1	1	1	..	..	..	..	..	..	..	1
" brain	..	1	5	114	11	4	9	8	5	2	1	3	5	6	4	6	5	3	1	5	8	6	8	4	10	4	1	7	3	5	5

TABLE VI.—*Deaths in each Ward for Six Months*—Continued.

DISEASES.	ALMSHOUSE.	PEOPLE OF COLOUR.	COUNTRY.	NATIVITY.			WARDS.																							UNKNOWN WARDS.
				United States.	Foreign.	Unk'n.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Inflammation of bronchi	..	5	2	33	8	2	4	2	1	5	1	..	6	1	..	2	1	..	1	..	2	..	6	..	2	2	..	1	1	1	2
" chest	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
" larynx	..	..	..	10	1	..	..	..	1	..	..	..	..	1	..	..	..	..	1	2	..	..	1	1	1	1	..	..	1	..
" heart	..	..	..	8	1	..	..	1	..	2	1	..	..	..	..	1	..	..	..	..	2	..	..	..	..	1	..	..	1	..
" liver	3	1	..	19	12	2	3	..	..	1	..	2	1	4	2	2	..	2	1	..	2	1	..	2	2	1	..	1	..	5	1
" kidneys	..	1	..	2	2	..	..	..	..	1	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
" lungs	10	20	5	148	32	11	21	10	10	16	4	3	17	7	5	7	8	3	4	3	6	6	6	8	4	9	3	2	4	15	5
" peritoneum	1	1	1	23	24	2	5	2	1	2	4	2	4	4	1	1	1	1	2	..	1	..	1	2	5	..	2	1	2	2	2
" hip	..	..	..	1	2	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..
" pleura	..	..	..	..	4	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..
" stomach & bowels	4	5	5	130	27	8	17	9	5	8	6	2	8	7	5	3	3	9	2	2	8	4	6	5	12	8	5	2	9	9	6
" throat	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	..	..	1	..	..	..	..	..
" uterus	..	..	..	2	2	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	1	..	..	..	..	..	..
" leg	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Intussusception	..	..	..	..	3	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..
Jaundice	1	..	1	7	2	1	..	..	..	2	..	..	2	1	..	..	..	..	..	..	1	..	..	..	2	..	..	..	1	..	..
Mania	..	..	..	4	3	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1	1	..	..	2	..	..
Mania a potu	3	..	1	14	28	8	3	3	..	6	3	..	2	1	2	2	2	..	..	..	3	1	5	..	2	3	..	1	1	4	5
Marasmus	15	24	1	308	13	6	20	17	6	20	16	9	12	6	9	8	6	6	8	9	13	15	24	13	36	11	13	8	10	26	5
Measles	..	..	..	8	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	2	4	1	..	..	..	..	..	1
Old age	3	2	1	44	35	5	3	..	1	3	3	2	8	2	2	8	1	3	1	3	8	2	4	3	5	3	6	2	1	6	3
Neuralgia	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Palsy	3	2	2	37	27	3	4	3	4	1	5	..	1	..	1	6	1	..	4	5	1	3	2	2	5	2	4	4	1	5	1
Pyæmia	1	1	..	4	..	1	..	..	..	..	1	..	..	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	1	..
Rheumatism	..	2	1	9	2	1	..	..	1	2	..	..	..	..	1	1	..	..	1	..	..	..	1	1	..	1	..	..	2	..	..
Scrofula	3	2	1	40	3	5	4	3	3	2	..	1	1	2	..	1	3	4	..	2	3	2	1	2	3	1	1	..	1	6	1
Smallpox	..	4	..	46	1	..	5	1	..	6	1	1	3	4	1	..	1	..	..	..	..	1	16	..	3	2	..	..	1	..	..
Softening of the brain	..	..	..	3	3	..	1	..	2	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..
Stricture of œsophagus	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stillborn	1	10	1	346	..	1	23	14	16	27	12	13	19	11	6	17	13	17	5	11	16	16	12	8	19	14	1	4	12	10	30
Syphilis	3	..	1	4	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..
Tabes mesenterica	1	2	..	17	..	1	1	3	1	2	1	..	2	..	..	..	2	..	..	..	..	..	2	..	1	..	..	1	..	1	1
Teething	..	1	..	24	..	..	1	..	1	..	..	1	3	..	..	1	1	..	1	..	3	..	3	..	3	1	2	..	1	1	1
Tetanus	1	1	1	3	7	2	2	..	..	..	1	..	..	..	1	..	..	..	1	..	..	..	..	..	1	2	..	..	..	1	2
Tumours	..	..	..	3	5	..	..	3	..	..	1	..	..	..	..	..	..	..	1	..	..	1	1	..	1	..	..	..	..	..	..
Ulceration	..	..	..	2	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" of stomach & bowels	1	..	..	8	1	1	..	..	1	1	1	..	..	..	..	1	..	..	..	1	..	1	1	..	..	..	..	..	..	2	1
" throat	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	..	..	1	..	..	..	..	..
Unknown	7	7	..	44	18	14	3	4	5	9	3	1	4	..	3	..	2	3	2	4	3	4	7	..	3	2	1	1	..	10	2
Worms	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Uræmia	..	..	..	2	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Total	256	306	131	4888	1096	358	448	332	237	385	232	150	358	190	182	214	182	156	123	195	283	194	307	217	452	261	122	147	187	433	224

TABLE VII.—*Classified Mortality for the year* 1860.

DISEASES.	JAN		FEB.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPT.		OCT.		NOV.		DEC.		TOTAL.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
CLASS I.—ZYMOTIC, EPIDEMIC, ENDEMIC, OR CONTAGIOUS.																									
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	1	..	..	..	..	..	..	..	4
" infantum	..	..	..	..	..	..	..	..	4	2	25	27	110	100	92	92	33	18	8	1	1	1	..	..	514
" morbus	..	..	..	..	..	1	..	..	..	2	..	..	4	7	6	2	1	1	..	..	..	..	..	..	24
Diarrhœa	..	3	1	3	4	3	2	2	2	6	12	8	13	16	17	13	9	4	3	8	3	4	4	2	142
Diphtheria	..	..	4	10	9	13	8	9	9	14	7	10	8	6	16	19	14	12	27	33	21	19	19	20	307
Dysentery	3	..	4	2	1	..	5	1	4	1	10	9	22	22	30	24	12	14	7	3	1	1	1	1	178
Erysipelas	2	1	5	3	3	8	6	3	4	8	2	2	1	2	6	4	1	2	6	3	2	2	2	2	80
Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
" bilious	..	..	..	1	..	..	1	..	..	..	..	1	1	3	2	..	1	..	..	1	..	..	1	..	12
" congestive	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	3
" continued	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
" gastric	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
" intermittent	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	1	..	..	..	5
" nervous	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	1	3
" remittent	..	..	1	..	1	2	1	..	2	2	2	..	..	..	..	..	1	..	..	..	4	..	..	2	18
" scarlet	21	8	22	19	18	19	16	19	13	24	20	7	11	15	18	9	17	28	52	51	37	45	58	44	591
" typhoid	6	11	9	6	7	6	7	10	3	12	11	9	7	6	15	14	11	10	11	4	17	10	8	3	213
" typhus	1	2	1	..	1	3	1	1	..	2	2	2	3	..	3	2	1	1	4	2	..	1	3	2	38
" " icterodes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Hooping-cough	2	5	6	4	2	3	3	2	5	3	..	2	1	3	2	3	2	3	1	..	..	1	1	1	55
Measles	1	..	1	..	..	2	..	..	..	1	..	..	..	..	3	2	..	..	2	..	..	2	1	..	15
Smallpox	1	..	2	1	..	..	1	..	1	1	2	1	1	..	..	2	..	1	6	5	9	4	6	13	57
Syphilis	..	1	..	..	1	..	..	..	1	1	..	..	..	..	1	1	..	..	..	1	..	1	..	1	9
Thrush or aphthæ	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	3
Total	38	32	56	49	47	60	51	47	49	80	93	79	182	181	214	190	107	96	128	112	96	92	104	92	2275
CLASS II.—UNCERTAIN OR GENERAL SEAT SPORADIC DISEASES.																									
Abscess	1	1	..	..	1	2	1	2	..	2	2	1	2	5	..	4	4	4	4	2	..	2	2	2	44
Anæmia	..	..	2	4	1	..	..	2	..	1	..	1	..	..	..	..	..	..	..	4	..	..	1	..	16
Cancer or scirrhus	..	2	..	4	..	2	4	5	2	6	2	1	..	..	2	2	2	2	3	5	3	5	1	1	54
" of breast	..	..	..	..	..	2	..	1	..	1	..	..	4	..	..	5	..	2	..	..	..	..	..	1	16
Cyanosis	5	..	3	1	2	5	3	2	2	2	1	1	3	3	4	3	2	2	..	1	2	3	2	..	52
Debility	21	15	24	16	18	17	23	16	23	20	17	20	28	26	31	33	20	16	29	29	18	21	33	24	538
Disease of throat	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	2
Dropsy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	10	15	11	10	8	13	69

TABLE VII.—*Classified Mortality for the year* 1860—Continued.

DISEASES.	JAN.		FEB.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPT.		OCT.		NOV.		DEC.		TOTAL.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
CLASS II.—UNCERTAIN OR GENERAL SEAT SPORADIC DISEASES—*continued.*																									
Gangrene	1	..	1	3	..	..	1	..	1	1	..	..	3	1	2	1	..	..	2	..	..	..	3	..	20
Gout	..	1	2	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	6
Hectic fever	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Hemorrhage	..	..	2	..	..	1	2	3	2	2	2	1	2	..	1	1	2	1	3	3	2	4	2	2	38
Inflammation of leg	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
" throat	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	1	4
Inanition	10	9	7	4	3	1	5	9	7	9	8	4	11	7	10	7	6	5	14	8	6	3	6	4	163
Marasmus	10	9	11	13	6	13	11	11	9	17	24	17	50	41	58	37	30	22	25	15	14	7	16	12	478
Malformation	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	3
Mortification	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Scrofula	4	1	4	1	..	4	3	..	1	..	3	2	6	5	9	3	3	1	2	3	5	3	7	1	71
Sore throat	1	7	5	5	2	1	3	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	27
Tabes mesenterica	..	..	3	1	..	..	1	..	2	1	..	..	2	2	3	..	6	1	2	..	..	1	..	1	26
Tumours	1	1	..	..	1	..	..	..	..	1	1	..	1	2	1	1	..	..	..	2	1	..	..	..	13
Ulceration	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	5
" of throat	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	2	..	..	..	6
Total	59	46	64	55	35	50	57	53	49	63	61	49	108	96	123	99	80	57	95	89	65	59	82	62	1656
CLASS III.—NERVOUS SYSTEM.																									
Apoplexy	6	4	5	12	5	3	5	..	10	5	4	3	6	4	12	3	6	4	10	7	9	3	6	11	143
Congestion of the brain	5	8	12	5	14	9	11	7	16	9	11	10	9	12	23	15	15	9	11	10	9	6	7	11	254
Convulsions	16	18	29	31	28	16	18	25	21	21	24	27	22	21	28	24	15	22	26	18	19	15	13	16	513
Coup de soleil	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	2
Disease of the brain	7	5	7	8	7	5	10	6	6	12	3	3	11	10	11	2	7	3	13	7	1	4	8	1	157
Dropsy of the brain	16	6	15	5	14	7	13	9	8	7	7	6	17	26	15	19	10	6	10	10	8	1	9	3	247
Effusion of the brain	..	2	1	9	4	4	5	1	1	3	5	5	3	2	6	8	2	2	2	6	1	..	3	1	76
Epilepsy	1	..	2	1	2	..	1	1	2	1	2	2	..	1	1	2	..	1	1	..	..	..	1	..	22
Inflammation of the brain	11	14	21	16	10	10	13	8	9	5	12	8	18	10	26	14	7	1	11	9	11	8	9	5	266
Mania	..	..	1	1	..	..	..	..	..	..	..	1	..	..	..	1	..	1	..	3	..	1	1	..	10
Mania à potu	8	1	2	1	11	3	10	5	9	5	10	2	6	4	6	1	5	1	12	..	3	3	5	4	117
Neuralgia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	2
Palsy	5	8	8	5	4	4	7	4	4	3	7	4	6	6	6	5	4	3	8	7	9	6	2	5	130
Softening of the brain	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	2	..	6
Tetanus	1	2	..	3	1	..	2	..	..	..	..	..	..	1	3	1	4	1	2	..	..	..	..	..	21
Total	76	68	103	97	100	61	95	66	86	71	85	71	99	97	139	95	75	54	106	77	73	49	66	57	1966

TABLE VII.—*Classified Mortality for the year* 1860—Continued.

DISEASES.	JAN.		FEB.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPT.		OCT.		NOV.		DEC.		TOTAL.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
CLASS IV.—DISEASES OF THE RESPIRATORY SYSTEM.																									
Asthma	1	1	2	3	2	1	1	1	2	2	..	3	1	..	1	2	1	..	3	..	..	..	2	3	32
Congestion of the lungs	7	4	13	9	6	4	12	2	5	11	5	4	4	1	7	3	1	5	3	8	3	2	6	4	129
Consumption of the lungs	59	60	96	80	69	70	59	64	72	90	56	55	64	56	77	88	56	59	66	78	45	61	66	76	1622
Croup	25	15	32	27	18	10	19	13	16	12	14	8	10	8	8	4	9	7	22	10	24	12	21	10	354
Disease of the lungs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
" " chest	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Dropsy of the chest	6	8	4	12	8	3	9	6	8	10	6	7	11	10	14	7	4	3	4	2	1	1	1	3	148
Hemorrhage of the lungs	2	4	2	4	1	2	..	..	1	..	..	2	1	..	3	1	1	1	2	..	..	..	..	..	27
Inflammation of the bronchi	10	7	5	8	7	5	4	2	4	4	4	4	..	..	4	2	2	1	3	5	3	8	8	7	107
" " chest	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
" " larynx	1	3	2	2	5	2	3	1	3	4	..	1	..	..	1	1	..	..	2	1	2	2	2	..	38
" " lungs	37	31	36	28	22	13	28	20	35	23	16	19	8	17	14	12	16	11	27	20	13	7	16	30	502
" " pleura	..	1	3	1	..	..	..	2	..	1	1	..	..	..	1	..	..	..	..	..	2	..	1	..	13
Total	148	137	195	174	118	110	135	111	146	157	102	103	99	92	131	120	90	87	132	124	93	94	123	134	2975
CLASS V.—ORGANS OF CIRCULATION.																									
Aneurism	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	2	..	..	..	..	..	4
Disease of the heart	14	12	25	18	13	15	13	8	12	17	6	13	7	19	13	9	9	9	4	10	10	11	9	11	287
Dropsy of the heart	2	1	1	2	..	..	..	..	1	..	..	..	1	..	5	1	4	6	2	4	..	1	1	3	35
Enlargement of the heart	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	2	5
Inflammation of the heart	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	3	1	1	2	..	9
Pyohæmia	1	..	..	..	..	1	1	..	2	..	..	..	1	..	1	..	1	..	1	..	..	..	..	1	10
Total	17	13	27	20	13	16	14	8	15	17	6	13	9	20	19	10	15	16	9	17	13	14	12	17	350
CLASS VI.—DISEASES OF THE DIGESTIVE ORGANS.																									
Abscess of the liver	..	..	..	..	..	..	..	..	..	..	..	..	2	5	..	..	..	..	..	..	..	..	..	..	7
Cancer of the stomach and bowels	1	..	..	..	1	3	..	..	..	2	..	..	1	4	6	2	2	2	..	..	..	1	4	..	29
" liver	..	..	..	1	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..	4
Cirrhosis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	1	1	5
Colic	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Congestion of the liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Disease of the liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..	..	1	..	..	..	7
" " spleen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1

TABLE VII.—*Classified Mortality for the year* 1860—Continued.

DISEASES.	JAN.		FEB.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPT.		OCT.		NOV.		DEC.		TOTAL.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
CLASS VI.—DISEASES OF THE DIGESTIVE ORGANS—*continued.*																									
Dyspepsia	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	4
Hemorrhage of the stomach and bowels	..	..	..	1	1	..	..	..	1	..	..	1	..	..	..	..	..	..	1	1	..	..	..	1	7
Hernia	..	2	..	1	..	1	1	..	1	..	..	..	3	2	..	1	1	..	1	1	..	..	1	1	17
Inflammation of the stomach and bowels	9	4	7	10	6	10	13	11	12	10	14	8	18	13	22	17	12	11	10	19	11	10	14	8	279
" " peritoneum	1	1	..	1	1	3	..	..	1	2	3	1	9	2	3	6	4	3	5	1	..	4	4	8	63
" " liver	3	1	4	5	5	3	3	4	2	3	5	2	3	5	2	3	2	2	3	6	4	..	2	1	73
Intussusception	..	1	..	..	..	..	2	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1	..	6
Jaundice	1	1	..	..	..	..	..	..	2	3	..	..	1	..	2	..	..	2	1	1	2	..	..	1	17
Teething	1	1	2	1	1	..	..	..	2	..	5	2	3	3	5	4	1	1	..	1	3	..	1	2	39
Ulceration of the stomach and bowels	1	..	1	..	1	..	1	..	..	3	1	1	..	..	2	3	..	1	1	..	2	1	..	..	19
Worms	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	3
Total	17	11	14	20	16	22	20	16	21	23	28	15	42	34	47	39	24	23	22	30	25	18	30	25	582
CLASS VII.—DISEASES OF THE URINARY SYSTEM.																									
Albuminuria	1	..	..	..	..	..	1	1	..	..	..	..	..	1	1	..	3	..	..	..	..	..	..	1	9
Diabetes	1	..	1	..	..	..	..	..	..	..	..	1	2	..	..	1	..	..	4	..	..	..	1	..	11
Disease of the kidneys	2	1	2	..	1	1	3	2	1	..	1	..	3	3	4	2	1	4	3	2	2	2	3	..	43
Inflammation of the kidneys	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	1	4
" " bladder	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	4	1	..	2	2	..	..	..	..	11
Uræmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	2
Total	4	1	3	..	1	1	4	3	1	..	1	1	5	4	7	7	6	4	9	4	3	3	6	2	80
CLASS VIII.—DISEASES OF THE ORGANS OF GENERATION.																									
Cancer of the uterus	..	6	..	6	..	8	..	..	..	5	..	3	..	3	..	3	..	1	..	4	..	1	..	1	41
Hemorrhage of the uterus	..	..	..	3	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	2	..	..	..	1	8
Inflammation of the uterus	..	..	..	1	..	1	..	1	..	3	..	1	..	1	..	..	..	1	..	..	..	..	..	2	11
Puerperal fever	..	7	..	11	..	4	..	3	..	7	..	3	..	1	..	4	..	1	..	1	..	..	..	5	47
" convulsions	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	3	..	..	4
Ulceration of the uterus	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Total	..	13	..	21	..	13	..	6	..	15	..	7	..	5	..	8	..	3	..	8	..	4	..	9	112

TABLE VII.—*Classified Mortality for the year* 1860—Continued.

DISEASES.	JAN.		FEB.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPT.		OCT.		NOV.		DEC.		TOTAL.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
CLASS IX.—DISEASES OF ORGANS OF LOCOMOTION.																									
Caries	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	2	..	..	..	..	..	..	..	4
Disease of the spine	..	5	2	1	3	..	1	1	4	..	1	1	..	..	1	..	..	..	..	3	1	..	..	2	26
Inflammation of the hip	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3
Rheumatism	1	1	1	..	..	..	1	1	1	..	3	1	1	2	..	..	..	1	1	1	1	..	3	2	22
Total	1	6	3	1	3	..	2	2	5	1	4	2	2	2	1	..	2	1	1	4	2	..	5	5	55
CLASS X.—DISEASES OF INTEGUMENTARY SYSTEM.																									
Eczema	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Elephantiasis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2
CLASS XI.—OLD AGE . Total	5	19	18	24	7	14	7	8	8	12	7	7	5	11	8	11	4	7	1	5	5	12	5	10	213
CLASS XII.—FROM EXTERNAL CAUSES.																									
Asphyxia	..	..	..	1	..	1	1	..	1	2	1	1	2	2	..	1	1	1	3	2	1	2	3	..	26
Burns and scalds	7	4	4	4	3	5	1	5	3	4	..	1	2	2	..	1	2	4	1	8	4	6	2	4	77
Casualties	6	..	9	3	7	1	5	..	13	4	8	3	16	3	13	4	12	..	25	1	5	3	4	2	147
Drowned	..	1	2	2	3	..	5	..	19	..	18	1	13	1	35	3	7	1	9	..	3	1	3	1	128
Exposure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	..	4
Fracture	1	..	1	1	..	1	1	..	..	1	..	..	..	1	1	..	1	1	1	..	1	..	2	..	14
Poisoning	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	1	4
Suicide	2	1	..	..	1	..	..	..	3	..	1	1	2	..	1	..	..	..	1	..	5	..	1	1	20
Violence	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	2	..	1	..	4
Want and neglect	1	..	1	2	..	1	1	1	..	..	..	..	2	4	1	2	..	2	1	1	..	1	1	..	22
Strangulation	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Total	17	6	17	13	14	9	14	6	39	11	29	7	37	13	51	12	24	9	41	12	22	17	18	9	447
CLASS XIII.—UNKNOWN Total	4	4	7	6	9	4	5	1	3	6	4	5	5	5	14	8	9	5	7	10	5	2	5	1	134
CLASS XIV.—STILLBORN Total	28	27	41	39	26	25	27	24	37	35	33	30	25	23	30	26	36	18	37	31	40	19	40	22	719

TABLE VIII.—*Mortality in each Ward, with the Population, according to the late Census, with the ratio of Deaths to Population, and the Per-centage of Deaths in each Ward to the Total Mortality.*

WARDS.	Population last census.	Deaths.	Deaths to population.	Per cent. of deaths to total mortality.
First	37,078	448	1 in 83	7.07
Second . . .	23,097	332	1 " 69	5.23
Third	19,976	237	1 " 84	3.71
Fourth . . .	23,633	385	1 " 61	6.06
Fifth	24,858	232	1 " 107	3.65
Sixth	14,928	150	1 " 99	2.36
Seventh . . .	31,397	358	1 " 87	5.64
Eighth . . .	27,811	190	1 " 146	3.
Ninth	17,215	182	1 " 94	3.
Tenth	21,967	214	1 " 102	3.37
Eleventh . . .	16,717	182	1 " 92	3.
Twelfth . . .	16,811	156	1 " 107	2.45
Thirteenth . .	20,132	123	1 " 163	2.
Fourteenth . .	24,336	195	1 " 124	3.
Fifteenth . . .	32,431	283	1 " 114	4.46
Sixteenth . . .	20,092	194	1 " 103	3.
Seventeenth . .	23,328	307	1 " 76	4.84
Eighteenth . .	20,470	217	1 " 93	3.42
Nineteenth . .	39,271	452	1 " 87	7.12
Twentieth . .	30,152	261	1 " 115	4.04
Twenty-first . .	17,164	122	1 " 140	2.
Twenty-second .	17,286	147	1 " 117	2.31
Twenty-third .	24,093	187	1 " 129	3.
Twenty-fourth .	23,791	190	1 " 125	3.
Unknown . . .	.....	224	.....	.....
Almshouse . .	.....	243	.....	.....
From the country	.....	131	.....	.....
Total for 6 mos.	.....	6,342		
Total population	568,034			
Total mortality for the year		11,568		
Ratio of deaths to population		.....	1 in 51	

Microscopic Structure of Diphtheritic Membrane.—Dr. STROUD exhibited a diphtheritic membrane of tubular form taken after death from the air-passages of a child of ten years of age, who had died, after five days' illness, of diphtheria.

This specimen presented the usual appearance to the naked eye, but it had been carefully examined under the microscope by Dr. James Darrach, to whom Dr. Stroud referred for a particular description.

Dr. J. DARRACH remarked that the membrane presented by Dr. Stroud exhibited, under the microscope, corpuscles and small round cells, with single nuclei like young epithelial, also granular matter. There was no appearance of fibrillation. In further illustration, Dr. D. then presented a specimen, removed from a chicken, exhibiting a deposit allied to that of diphtheria. The deposit was upon the mucous membrane of the sides of the mouth, underneath the tongue, upon the palate, and within the glottis, which had been entirely closed by it. The chicken, *no doubt*, died from suffocation. This chicken lived about eight days from the time when it was first noticed as sick, during which time it refused to eat, but drank a great deal of

water. Since noticing the above, the Doctor has examined another chicken which died of the same affection. In this instance the whole nares were involved. The deposit, however, was found directly upon the rim of the glottis, and not within it. In neither of the above did the deposit extend below the glottis. What, perhaps, is worth noticing is, that all the children (some four or five) of the family which owned these chickens, had just recovered from diphtheria. This affection was also prevalent in the neighbourhood.

The Doctor mentioned that he did not wish it to be understood that he thought the disease of which this chicken died differed from one already recognized as occurring in poultry, from which the term croup was obtained. He stated that he lacked information on this point. At the same time he desired to direct the attention of the college to the close resemblance of this disease to the diphtheria in the human subject both as to the elements of the membrane and the locality affected by the exudation.

The Doctor made the following remarks upon the structure of the diphtheritic membrane. He was disposed to doubt that fibrinous exudation was a constant effect in diphtheria, or even in ordinary sthenic croup. This opinion was founded on observations made by himself and his brother, Wm. Darrach, Jr., during the epidemic of this disease in Philadelphia, in the winter of 1860.

He had examined a number of the patches of membrane, which were carefully removed during life, also others taken from cases after death.

The elements found in all these examinations were cells, young epithelial nuclear bodies, not affected by acetic acid, and, most likely, aborted epithelial cells, with pus-corpuscles and granular matter; the granules occasionally assuming a disposition to form themselves in parallel lines.

In no one case could be perceived a distinct fibrillation, as is easily recognized in the transudations upon the pericardium and other serous membranes.

If the fibrillation be not present, we have not the morphological element of coagulated fibrin; and, therefore, unless there be some chemical test by which it may be designated, we cannot predicate its existence under the microscope.

It is true that a granular form of fibrin has been described, but this has not been established.

Again, has not the existence of fibrin in some of the membranous patches of diphtheria, and in other affections of the mucous membrane, been rather inferred than demonstrated?

We have been taught and many still maintain that pus and other cell-elements are the direct product from an unorganized blastema termed fibrin; more especially has this been considered the origin of pus, at least with those who have given up the idea of its being a secretion.

The existence of these elements has led observers to predicate a substance (fibrin) from which these elements have originated.

But granting this view, to which we have become so wedded, to be no longer tenable—and if Virchow substantiates his statements, it no longer is—then we need not presuppose the existence of fibrin because we see nuclear growths or cells, now termed pus or exudation-corpuscles, which, according to some, are the elements by which the exuded fibrin is destroyed.

Is there not another view which may satisfactorily explain the nature of at least some of the formations which are found upon mucous membrane?

Are they not frequently simple products of perverted cell-growth, which,

owing to a poison to be eliminated, or from some other unknown cause, gives rise to rapid multiplication of aborted epithelial cells, these being formed into membrane of a low vitality which soon disintegrates into granules.

Nor is it by any means an unsupposable case that cells which are arranged in rows, should leave some such appearance in the granules, the product of their disintegration.

These views have been confirmed by the examination of the deposit in the chicken already reported.

Another reason which might be adduced in their support is that mucous membranes are not disposed to transude fibrin. Mucous inflammation tends to the catarrhal form, and results in the formation of a tenacious albuminoid product, which is considered by modern pathologists, not as a *transudation*, but as a *product* of cell-formation. This excessive cell-action causes a rapid cell-growth and terminates in a degradation of the individual cell from exhaustion.

Note from Dr. G. B. Wood *in relation to the Calabar Poison Vine, and on the Mode of Gathering the Resin of the Indian Hemp.*—Dr. Carson stated that he had received a letter from Prof. G. B. Wood, the President of the College, transmitting some of the seeds or fruit of the Assafœtida plant, which had been presented in Edinburgh to Dr. Wood by Drs. Christison and Balfour, the latter of whom is Professor of Botany in the University of Edinburgh, and Superintendent of the Royal Botanical Garden of that city.

Dr. Wood mentions having seen in this garden, during a visit in company with Drs. Christison and Balfour, among other novelties, an undoubtedly *genuine gamboge plant*, which had been brought or sent to Dr. Christison from Siam, its native country. As no flower was received, however, and as many years must elapse before the young plant they have will produce one, its precise botanical character has not been determined.

By permission of Dr. Wood, the following extracts from his letter were read by Dr. Carson to the College:—

"Some time since Dr. Christison received some of the seeds of the famous Calabar poison vine, used by the natives of that part of Africa in their trials for witchcraft; and, having taken about half of one of these seeds, he was so violently affected that his friends were alarmed for his safety. Some of these seeds were planted and produced a climber, which flowered in due time and enabled Dr. Balfour to determine its character. He named it *Physostigma venenosum.*"

"Another point of some interest is relative to the mode of gathering the resin of the Indian Hemp by the natives. Dr. Christison says that he has learned directly from good authority in Hindostan, that this method consists in rubbing the leaves and flowering tops between the hands, and then, when these are sufficiently loaded with the adhesive exudation, to scrape it off. The prevalent notion that the natives gather the resin by walking through the fields of hemp, and afterwards scraping off the matter which adheres to their clothing, is, to say the least, apocryphal; nay, he considers it absurd, as the parts of the plant which exude the resin are above the heads of the natives, and the plants grow so closely together and are so strong that a native could hardly make his way through a field of them. He says, moreover, that, according to information he has received, the hemp plant does not produce the resin satisfactorily in the low hot

plains of Hindostan, but in the regions near or among the hills. I have little doubt, myself, that it might be advantageously collected from the hemp of our own country; as specimens grown in my garden have had strongly the characteristic odour, and the tops have been very adhesive to the hand; which was not the case with a specimen I saw growing in the Botanical garden here."

Fatal Parturition from Inertia of the Uterus; Fœtus not delivered.— Dr. Corse read the following note of this case, and exhibited the fœtus and its membranes with the uterus: Mrs. A. P. was taken in labour at a period which she supposed to be the close of the eighth month of pregnancy.

The uneasy feelings usually preceding labour began gradually, and continued for several days without any increase of the pain or uterine contractions. She at length began to feel spells of sinking and prostration, which were at first slight and of short duration, but gradually became more marked and of longer continuance; their recurrence also became more frequent. No hemorrhage whatever took place, not even the usual amount which sometimes constitutes the *show* of obstetricians. I was sent for in consultation; but a few minutes before I arrived, one of her sinking spells came on, in which she expired.

Her colour at that time was exceedingly pallid. No patches or spots of purple or deep red appeared, as in cases of purpura and some other diseases, incident to a low state of the system. The body was plump, and the skin free from the shrunken and wrinkled state which it presents sometimes in cases of death from extreme prostration or exhaustion. She had had no diarrhœa or other exhausting discharge. A moderate quantity of food had been taken daily, and she had had a tolerable amount of sleep in short naps, but no long or refreshing sleep at any one time for several days.

The emotional system being depressed, for some weeks before her death she had been labouring under dejection of spirits. No good reason could be given to account for this, and we are left to suppose it to have been, for the most part, due to the remembrance of a former labour about two years before, from which she narrowly escaped with her life. In that labour she had had a placenta prævia, and was reduced by the hemorrhage to the last extremity, and lay many hours after delivery before reaction could be brought about. I was with her on that occasion, in consultation, and delivered the infant by version from a vertex presentation to a footling. Soon afterward some of her lady acquaintances very indiscreetly predicted that, if she should ever become pregnant again, she would surely perish in the delivery. It is not positively known that this preyed upon her mind, but she was meditative in her character and of taciturn habits. No other cause for depression of spirits is known to have existed.

Permission for a *post-mortem* examination was obtained, in hopes of finding some other cause of death, but our expectations were disappointed. I opened the body by incision near the median line of the abdomen, as is sometimes done in the Cæsarean section, and on cutting into the uterus found an anterior implantation of the placenta. The fœtus was in the second position vertex presentation and of large size, yet no obstacle to the delivery presented itself. No appearance of the fœtus induced the supposition that it had been long dead. The viscera of the thorax and abdomen were in turn examined, and all of them found in a healthy state, with the exception of congestion or engorgement which prevailed in all the internal organs except the uterus; this did not appear to have had more than the

usual supply of blood. We are led to suppose that the depressing emotions have acted in this case on the general nervous system in such manner as to bring about inertia of the uterus. Such depression, however, is not necessarily the cause; since inertia of the uterus may occur in patients whose bodily strength is good. In other instances, also, where great prostration of the general system exists, the tone of the uterus is maintained and it acts vigorously. Admitting the inertia of the organ, from whatever cause, the presence of the fœtus is naturally exhausting; and *any* depressing cause, acting coincidently, would tell with twofold effect upon the vital powers. Should, under these circumstances, a syncope occur, the presence of the fœtus would be greatly against a successful reactionary effort.

The os uteri remained undilated, and was only about three-quarters of an inch in diameter; delivery, therefore, was out of the question.

Besides its pathological value, the *post-mortem* specimen here presented has a physiological worth. In it we may see the mode and extent of the attachment of the placenta to the uterus; the great size of the uterine arteries during pregnancy; the calibre and situation of the uterine veins, now called uterine sinuses; their greater capacity opposite the placenta, etc. etc.

Inspection of the ovaries would lead us to regard the left one as that which furnished the ovule for this pregnancy, there being in it a well-marked corpus luteum.

March 3. *Fatty Degeneration of the Placenta, resulting in Abortion. Fœtus retained Two Months after its Death.*—Dr. Corse read the following sketch of the case, and exhibited the specimen:—

Mrs. H., pregnant for the third time, sent for me, on account of excessive menstruation, as she supposed. She stated that she had taken cold some time since, and, in consequence of it, had passed her last three menstrual periods without any discharge. About two weeks ago they had come on again, and still continued.

With the discharge she had only very little pain, but great weakness. Examination of the mamma showed the areola and papillæ indicating pregnancy; a per vaginam examination revealed an enlarged uterus; and some other signs, with these, induced me to express the opinion that she was pregnant about three months. She was reluctant to suppose herself in this condition, and said that her feelings were different from what they had ever been before. Under appropriate treatment the hemorrhage abated, but did not cease entirely. Several interviews followed, and examination showed the areolæ and papillæ increasing and the uterus enlarging, up to the end of the fourth month; at this time I noticed that the mammæ suddenly became smaller, and the areolæ faded considerably away; the uterus diminished in size, and the feel of it entirely changed. The hemorrhagic discharge had changed to a bloody serum which oozed away in no great quantity, but still enough to annoy the patient. These symptoms went on a little more than two months longer, and then she was taken suddenly in the night with profuse hemorrhage from the uterus. Pains soon came on, and in the course of a few hours she was delivered of the fœtus and membranes which I here exhibit. The placenta presents, all over its uterine aspect, a surface free from the tufted and villous character of the healthy organ; it is dense, of a suety hardness, and has very little elasticity. The thickness of the hardened portion is from two to three lines—the part of the organ between this and the fœtal surface being composed of the usual fibrous tissue, with interlacing bloodvessels.

Microscopic examination showed this structure to be fibroid, with much intervening granular, fatty matter; with difficulty could anything like villi be made out. Numerous granular corpuscles were visible, and some few nucleated organic cells were to be seen.

The attention of the profession was first called to this form of disease about seven or eight years ago. Since then the subject has been more closely investigated, and many pathologists are of opinion that the fatty state is secondary, the primary one having been some form of disease (probably inflammatory), accompanied with a copious exudation of fibrin. It is well known that these products of such low organization are very prone to run into a state of degeneration, with much oily matter, in a granular state, throughout.

Recent observations have shown masses of fatty degeneration to be very common in the placenta at the close of utero-gestation; and this has led to the supposition that this state is one of the phases of retrograde change normal to tissues whose period of existence has expired. This idea, however, cannot apply to cases of fatty degeneration of the placenta occurring in the earlier months of pregnancy.

Pus is said to be fatty degeneration of the exudation-corpuscles; and this might, without impropriety, be regarded as a state of degradation just short of pus; one of the stages in the process of cure where the vitality was not high enough to remove the fibrinous deposit by absorption, and not low enough to run into pus.

It would seem to me probable that this state was brought about by implantation of the placenta over a part of the uterine mucous membrane, which was in a state of inflammation; the endo-metritis would incline to set up the same action on the adjacent part of the placenta, and thus cause the deposit of fibrin. An effort towards cure on the part of nature converts it into fatty degeneration; but before the purpose is accomplished, the death of the fœtus takes place; and, after a greater or less period of time, this is expelled.

Case of Cold-stroke.—Dr. Henry Hartshorne gave a brief account of a case of fatal illness following sudden exposure to cold for a short time.

J. S. H., aged 14, previously in ordinary health. On the night of the 7th of February (on which day the thermometer had gone down nearly 50° Fahr. in twelve hours, with the rise of a piercing wind), he rose from his bed in the back chamber of a large house, and went, barefoot and in his night-shirt, to the window of the adjoining front room, which he opened and stood by for a few minutes, looking out, on account of an alarm of fire. Being thus thoroughly and suddenly chilled, he had some symptoms of indisposition the following morning, but became more ill as the day advanced. Dr. H. H. saw him about 5 P. M.; at which time he was suffering with headache, drowsiness, and vomiting; the skin moderately hot; the pulse hard and accelerated. A saline laxative had produced two evacuations of the bowels. Fourteen leeches were directed to be applied to the back of his neck, cold cloths were placed upon the forehead, and the solution of citrate of potassa was prescribed.

The next morning he was still suffering with severe headache; although his skin was of a lower temperature, and the hardness of the pulse had subsided; its rate being 95 per minute. In the afternoon he vomited twice; his bowels were also freely moved. The cold applications and neutral mix-

ture were continued, and mineral water was allowed as a drink; a mustard plaster, also, being applied to the back of his neck.

About 6½ P. M., he became extremely restless and incoherently delirious, setting his teeth firmly against food or medicine, but opening them to receive and chew lumps of ice. He recognized no one except his mother. There was no clonic convulsion, but a disposition to clasp the fingers tightly against the palm, and to throw out the hands and feet with impatient suddenness. The skin at this time was *moist;* the pulse variable in force, but constantly accelerated.

Under the advice, in consultation, of Dr. Charles Evans, a blister was applied to the nucha at 10 P. M. It was found impossible to compel him to swallow any medicine. At about 4 o'clock of the succeeding morning he died. A *post-mortem* examination could not be obtained.

After careful inquiry, it was impossible to discover any probable cause for this sudden and rapid illness except his exposure, upon leaving a warm bed, to the piercing wind of a cold winter's night.

Such results of cold are undoubtedly rare; but similar cases have been recorded. A London periodical, quoted in the March No. of the *N. Am. Med.-Chirurg. Review*, mentions the case of a gentleman who, on a very cold day during the past season, was observed by a friend in the street to look ill; he was sent home in a cab, became delirious, and died in twenty-four hours. The number of sudden deaths in London, during the same cold spell, is believed to have been greater than at any previous period; while the aggregate general mortality was also excessive.

Larrey, in his memoirs, speaks emphatically of the importance of sudden and great *changes* of temperature in producing deleterious effects. He asserts that gangrene from congelation never occurs unless the body or limbs have been, after freezing, rapidly brought to a high temperature. The reverse of this was illustrated in the case above narrated: or, perhaps, we might more correctly say, that it was the converse or opposite of sun-stroke or heat-stroke. Probably the rapid and extreme change of temperature disorganized the minute elements of important structures, especially of the brain; in a mode analogous to that in which congelation, especially when suddenly succeeded by the thawing process, destroys the vitality of plants.

A New Elastic Pessary.—Dr. H. Hartshorne also exhibited to the college several *ring pessaries*, of different sizes, made of vulcanized caoutchouc. The material and form were almost precisely those of the ordinary gum-ring given to infants. Dr. H. H. had first made use of the gum-ring as a pessary, and found the only objection to it to be its deficient size. The pessaries exhibited had, therefore, been made to order, at his request, through the agency of Mr. Hubbell (1410 Chestnut St.), by the Goodyear Rubber Company. In the cases in which he had so far used them, he had found them to answer perfectly well. After remaining *in situ* for many weeks, they had been found to show less evidence of change than many of the gutta-percha rings would have done.

The advantage of this kind of supporter is, in a word, its elasticity; which imitates and substitutes (or affords a supplement to) the natural supporting powers of the utero-vaginal apparatus, more benignantly than any inflexible or unyielding material can do. At the same time it is not unreliable, as is the case with the India-rubber air-bag or colpeurynter, and is free from the annoyance of a protruding tube.

Although medical men differ very much in their estimation of the value of pessaries in the treatment of uterine displacements, it would seem that the most obvious objections to their use must be removed or weakened, if we have at hand instruments which closely imitate the natural ligamentous tissues, in affording an elastic support. The same yielding or flexible character, moreover, makes it easier for the patient to introduce and remove the pessary for herself; an advantage, in many cases, of no slight importance.

June 5. *Perineal Fistula, with Abscess of the Testicle.*—Dr. Corse read the following note of a fatal case, and exhibited the *post-mortem* specimen:—

Mr. H., æt. 44, sent for me, in consequence of daily chills, fever, and great prostration. I found he had a fistula in perineo, from which the urine constantly dribbled; none passed by the urethra. From him I learned that he had always had a weakness in the bladder from boyhood, and that his mother died early from phthisis. About the age of six years he received a hurt on the left hip-joint; this was followed by inflammation, which became chronic, ran into hip-joint disease, and finally resulted in anchylosis of the joint. He had suffered frequently from disorder of the urinary organs, with great pain and difficulty in passing urine. In the summer of 1859 the fistula opened, and he passed water both by the urethra and by the fistula. In July, 1860, he underwent an operation for the cure of the fistula. This hope was not realized, but, on the contrary, he found himself worse rather than better. In this unhappy state he removed to Philadelphia in the autumn of 1860, and placed himself under my care. Of the operator or of the operation performed I have no knowledge, and his condition was not such as to justify me in undertaking any operative treatment. I therefore applied myself to improving his general health by means of tonics, nutritious diet, and stimuli. He rallied and regained, in some degree, his strength; soon, however, an attack of epididymitis set in, and ran into suppuration in spite of all efforts to prevent it. Great prostration followed this, and no course of tonics and nutritious diet seemed to bring him up; the abscess in the testis continued to discharge pus by a fistulous opening which had formed through the dartos. Not long afterward several carbunculous boils formed in different parts; he began to run down in spite of the very best diet, tonics, and stimuli, and at last expired.

A *post-mortem* was allowed, by which I obtained the specimen I here lay before the College. The first incision was made by placing the point of the scalpel about the middle of Poupart's ligament on the right side, and carrying it in a semilunar direction through the hypogastrium to the middle of Poupart's ligament on the opposite side; another incision was then made in the median line of the abdomen from the ensiform cartilage, to join the one already made. These incisions were deepened and extended through the peritoneum, so as to open the cavity of the abdomen; then the cuts on each side were carried downwards through the soft parts into the anus, thus inclosing the whole of the region involved exteriorly. The soft parts within the pelvis were then separated from the sides, and the rami of the pubis divided by means of a saw, the section passing through the obturator foramen near its middle. The piece now being loose, the remaining soft parts were divided down to the bottom of the pelvis, and the entire mass removed, containing the whole of the genital organs.

On examination it will be found that the bladder is reduced in capacity

to about one inch in diameter; the walls are thickened and indurated, and have lost their elasticity. The whole mucous surface is covered with granulations; no part of the normal mucous covering being left. The fistulous canal is large, and occupies the place of the membranous portion of the urethra, which is almost gone by ulceration. The point at which the unnatural opening in the urethra has taken place seems to have been behind the triangular ligament; the liquid has followed that structure to its lower edge, and, passing under it, has made its way out about the centre of the perineum.

The abscess which has formed in the left testicle does not connect with the primary fistula, but it seems to have been caused by extension of the inflammation from the urethra through the vas deferens; for the one on that side is much the larger and yielded pus under pressure, while the smaller one on the opposite side yielded, on compression, a white milky fluid.

The ureters here are both very large, and yielded pus on pressure. Their mode of entrance into the bladder has lost its characteristic valvular arrangement; they enter directly through the walls, and present on the inside a large and ragged orifice.

The prostate gland seems to have been the seat of some inflammatory action, as several cavities are here to be seen, which contained pus.

The seminal vesicle of the left side is much thickened in its walls; the cavity remains open. The vesicle of the right side is one indurated mass, the cavity entirely obliterated.

The urethra has been cut open throughout its whole length, and the point of constriction shows that the unnatural opening does not necessarily take place close to the constricted part, the distance between them being, in this instance, more than three and a half inches.

SUMMARY OF THE TRANSACTIONS

OF THE

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

FROM SEPTEMBER 4, 1861, TO FEBRUARY 5, 1862, INCLUSIVE.

1861. *Sept.* 4. Dr. REESE made a verbal statement of the results of certain experiments, undertaken with a view to determine *the effect of the presence of morphia in disguising the usual colour-test for strychnia*. These experiments were based upon a case of alleged poisoning by strychnia, in which a man was indicted for the wilful murder of his wife, in Perry Co., Pennsylvania, in April, 1861. The stomach and a portion of the small intestine were examined by Dr. Reese for strychnia, eight weeks after the death of the woman; and although the most scrupulous care was bestowed upon the analysis—six or seven separate investigations having been made—no trace whatever of the poison could be detected, either by the colour-test, or from the bitter taste of the ultimate ethereal extract. The chemical processes employed were those known as Graham and Hoffmann's (in which animal charcoal is used to extract the alkaloid), the process of Staäs, and that of Prollius (in which chloroform is used as the ultimate solvent).

Now, as all the *moral* circumstances of the case, as well as the symptoms exhibited by the woman, clearly pointed to strychnia as the cause of death, it became a matter of interest and importance to ascertain, if possible, if there was any adequate reason for the non-detection of the poison. There were several circumstances which, in Dr. Reese's judgment, might have explained this failure. First, the length of time (eight weeks) that had elapsed between death and the chemical examination; it being admitted by the best authorities, that organic poisons do undergo change in the body *after* death. Secondly, the rather unusual length of time (seven or eight hours) that the woman survived after taking the poison; it being clearly established that the alkaloids are very rapidly absorbed from the stomach and eliminated from the blood: consequently, in the present case, *all* might have disappeared before the examination was made. Thirdly, the fact, that the woman had taken, by the advice of her physician, just before her death, *a quarter of a grain of morphia.*

It was this latter circumstance that led Dr. Reese to make his experiments, with a view to determine the question of how far the presence of morphia would interfere with the production of the usual *colour-test* for strychnia, when in contact with organic matters. We subjoin only the most striking ones.

Experiment 1.—The $\frac{1}{100}$th of a grain of strychnia was put into a pint of water, together with several ounces of beef, finely cut up, some starch, common salt, and a few drops of acetic acid (the object being, as nearly as possible, to represent the contents of a stomach after eating). The whole was subjected to moderate heat, strained, pressed, and evaporated, and finally treated after the process of Mr. Staäs. The ethereal solution, on being concentrated, yielded clear proof of the presence of strychnia, both by the colour-test and by the bitter taste. This experiment was intended to prove the delicacy and accuracy of the process that had been employed in the previous analysis of the stomach.

Expt. 2. This was a repetition of the last, except that to the $\frac{1}{100}$th gr. of strychnia there was added three times that quantity of morphia ($\frac{1}{33}$d of a grain). Although the same process precisely was employed, not the slightest trace of strychnia could be discovered by the colour-test.

Expt. 3. This resembled Expt. 2, except that the $\frac{1}{50}$th of a grain of morphia was added to the $\frac{1}{100}$th of a grain of strychnia (or double instead of treble). Here, likewise, the *colour-test* entirely failed.

Expt. 4. In this case an equal amount of morphia only, or the $\frac{1}{100}$th of a grain, was added to the strychnia, and the same method pursued as in Expt. 2. The result was that the faintest possible evidence of the presence of strychnia was afforded, and only after repeated trials.

From these last experiments, Dr. Reese concludes that "*the influence of morphia in preventing the detection of minute quantities of strychnia in the presence of an organic fluid, depends upon the relative quantity of the two alkaloids, the strychnia not being discoverable when the morphia is in excess, and barely discoverable when in equal quantity.*"

As the results of numerous experiments made with various quantities of strychnia and morphia *in the pure state, i. e.* free from all organic mixture, Dr. Reese stated that not only is the difficulty of detecting strychnia greatly increased by increasing the *proportion* of morphia, but that the actual amount of it discoverable is nearly in an inverse ratio with the amount of combined morphia. For example, when the quantity of the two alkaloids was in the proportion of one to one, he was able to detect as small an amount of strychnia as the $\frac{1}{5000000}$th of a grain. From this, the minimum amount discoverable progressively rose with the increase of the proportion of the associated morphia, until the last experiment, made with one proportion of strychnia to twenty of morphia, when the smallest quantity that could be detected had increased to the $\frac{1}{5000}$th of a grain.

The amounts experimented upon were, purposely, extremely small, so as to afford fair conclusions in cases of actual poisoning.

In order more fully to settle this question, and to answer the objection that the result might possibly have been different if the two alkaloids had been in the stomach of a *living* animal, the following experiments were made: Half a grain of pure strychnia was administered to a cat, which died in convulsions in eleven minutes. The stomach, examined on the following day, by Staäs' process, afforded clear proof of strychnia by the colour-test. To a second cat, a quarter of a grain of strychnia, and the same quantity of morphia were given, and the stomach examined, as before. The faintest possible evidence of strychnia was obtained, exactly coinciding with a previous experiment made with the organic mixture. To a third cat, the $\frac{1}{20}$th of a grain of strychnia and the $\frac{1}{10}$th of a grain of morphia were given (double the quantity). Here there was a total failure to obtain the colour-test; although the bitterness of the extract, and the fact that the solution produced the characteristic tetanic convulsions in a number of frogs, distinctly proved its existence.

From all the foregoing evidence, Dr. Reese believes that his proposition is clearly established; and he calls the attention of the profession, and more especially of toxicologists, to its importance in a medico-legal point of view.

In connection with the above, the extreme delicacy of the colour-test for strychnia was noticed, Dr. Reese having been able to determine less than the half-millionth of a grain, when free from organic mixture; and on some occasions, he had even succeeded in procuring the characteristic flash of blue colour, when operating with as minute a quantity as the *one-millionth* of a grain. Among the colour-producing or oxidizing bodies usually employed,

he prefers the ferrocyanide of potassium (red prussiate) in conjunction with the sulphuric acid, as being, in his hands, the most delicate.

Along with the colour-test, Dr. Reese also noticed the extreme delicacy of the *physiological* or *frog-test*. He had made some interesting experiments with this test, with the twofold view of, first, establishing its comparative value with the colour-test; and secondly, of ascertaining how far the presence of morphia would interfere with its delicacy. Some of his results are here given :—

Expt. 6. A small frog weighing about 40 grains was immersed in a solution containing one grain of strychnia to twelve pints of water (one drop of which would contain the $\frac{1}{21\,5\,0\,0\,0}$th of a grain): tetanic spasms were produced in fifteen minutes.

Expt. 7. A solution of one-half the strength of the foregoing, in which one drop would represent the $\frac{1}{43\,0\,0\,0\,0}$th of a grain, produced decided convulsions in a frog weighing 29 grains, after half an hour's immersion.

Expt. 8. The $\frac{1}{5\,0\,0}$th of a grain of strychnia was put into the mouth of a middling-sized frog: it was convulsed, and died in about thirty minutes. The extract, obtained from the abdominal viscera by Staäs' process, although it afforded no perceptible colour-test, had a bitterish taste and produced tetanic spasms in several small active frogs.

In these experiments the frog was put into a small quantity of the solution—not more than about half a fluidrachm, so as simply to cover the hind legs and a portion of the body. The quantity actually absorbed through the skin must necessarily have been extremely minute; hence the great delicacy of this test, and its value as a *corroborative* proof in medico-legal investigations.

As regards the question whether the presence of morphia would interfere with the value or delicacy of the frog-test, Dr. Reese's experiments clearly demonstrate the fact that morphia, which has been shown so completely to disguise the usual *colour-test*, most fortunately produces no observable effect upon the delicacy of the frog-test. We subjoin a few results :—

Expt. 2. A frog weighing 40 grains was immersed in a solution containing one grain of strychnia and eight grains of morphia in twenty-four fluidounces of water. It exhibited tetanic spasms in five minutes.

Expt. 3. A frog weighing 100 grains was immersed in a solution containing one grain of strychnia and twelve grains of morphia in forty-eight fluidounces of water. It exhibited the usual tetanic spasms in fifteen minutes.

Expt. 4. A frog weighing 35 grains was immersed in a solution containing one grain of strychnia and thirty-two grains of morphia in six pints of water. It was convulsed in twenty minutes. Another animal rather smaller was affected in five minutes.

Expt. 5. A cat was poisoned by taking $\frac{1}{2\,0}$th of a grain of strychnia and $\frac{1}{1\,0}$th of a grain of morphia. The stomach on being analyzed by Staäs' process failed to yield the colour-test; but the watery solution of the extract produced the most decided tetanic convulsions in eight frogs, generally resulting in death.

The *bitterness of taste* of strychnia has also been the subject of experiment by Dr. Reese. He has found it to be decidedly the *most* bitter substance known. One drop of a solution containing a grain dissolved in five gallons of water, yielded a perceptibly bitter taste, equivalent to the $\frac{1}{5\,0\,0\,0\,0\,0}$th of a grain; and a solution containing one grain in twenty-five gallons of water, produced a sense of bitterness when a portion of it was forcibly rinsed in the mouth.

The bitter taste of the ultimate extract is an important corroborative proof of the presence of strychnia, in all supposed cases of poisoning; so

much so, that it is very questionable whether the *colour-test* can ever be obtained, where the extract fails to yield a bitter taste.

Dr. Thomas inquired if Dr. Reese had made any experiments with the frog-test upon the extract procured from the stomach of the woman supposed to have been poisoned?

Dr. Reese replied that, "although he was very desirous to have done so, he was unfortunately unable to procure any frogs of the proper kind in the winter season, when his analysis was made. This was the only link wanting to complete the chain of evidence."

Dr. Thomas remarked that from his own experiments with strychnia and morphia combined, on frogs, the latter alkaloid appeared to have no effect in antagonizing the influence of the former, so as to counteract its poisonous impression. This corroborated the results of Dr. Reese's experiments on both frogs and cats.

1862. *Feb.* 5. *Report on Meteorology and Epidemics for* 1861.—Dr. Wilson Jewell read the following report:—

Meteorology.—As in former years, I have the pleasure of presenting an abstract of meteorological observations for the year 1861, made by my friend James A. Kirkpatrick, A. M., Prof. of Civil Engineering in the Philadelphia High School. These observations are taken for the Smithsonian Institution at Washington, and are authoritative. He has also at my request furnished a comparison of some of the meteorological phenomena of the year 1861 with those of 1860, and of the ten years from 1852 to 1861 inclusive, for Philadelphia, which I subjoin in his own words.

The mean temperature of the year (1861) was about six-tenths of a degree above that of the year 1860, and about four-tenths of a degree above the average for the last ten years.

The maximum temperature (95°) occurred on the 8th day of July. The minimum temperature, one degree below zero, was on the 8th of February. The range of temperature for the year was consequently 96°.

The warmest day of the year was the 8th of July, of which the mean temperature was 87.8°. The coldest day was the 13th of January, the mean for that day being 7.8°.

Of the seasons, this winter was one degree warmer, and the summer one degree and a quarter colder than the average for ten years. The spring was one-tenth of a degree colder, and the autumn six-tenths of a degree warmer than the average.

The temperature of all the months except three, fell within two degrees of their average temperature for ten years. The month of October was three degrees above the average, and was the warmest October during the ten years of observation. February was $5\frac{1}{2}°$ above the average, and was the warmest February, for ten years, except February 1857, which was half a degree warmer.

The temperature of May was $3\frac{1}{2}°$ below the average, and was the coldest May for ten years, except May, 1858, which was seven-hundredths of a degree colder.

The maximum pressure of the atmosphere (30.526 inches), occurred on the 23d of January; and the minimum pressure (29.096), on the 27th of May.

The force of vapor and relative humidity for the whole year were greater than for 1860, but less than the average for ten years.

The amount of rain that fell during the year was an inch and a half more than the average amount for ten years. The quantity that fell in the month of December (2.016) was less than in any December since 1851; and the number of rainy days was fewer than ever before observed for that month.

General Abstract of Meteorological Observations, made at Philadelphia, Pa., during the year 1861.

By JAMES A. KIRKPATRICK, A. M., Prof. of Civil Engineering in the Philadelphia High School.

(Barometer fifty feet above ordinary high water in the Delaware River.)

1861.	THERMOMETER.									BAROMETER REDUCED TO 32° F. But not corrected for altitude.							
							RANGE.		Mean of daily oscillations.							RANGE.	
MONTHS.	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Monthly.	Mean daily.		7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Monthly.	Mean daily.
	°	°	°	°	°	°	°	°	°	inches.	inches.	inches.	inches.	inches.	inches.	inches.	inches.
January . . .	27.67	34.34	30.90	30.97	49½	1	48½	5.98	11.61	29.991	29.953	29.968	29.971	30.526	29.460	1.066	.229
February . . .	33.86	45.55	39.14	39.52	68½	—1	69½	8.90	17.27	29.954	29.912	29.951	29.939	30.485	29.308	1.177	.264
March	37.73	48.71	41.58	42.67	78½	16	62½	8.66	18.18	29.917	29.862	29.906	29.895	30.386	29.354	1.032	.231
April	47.18	60.55	51.10	52.94	88	33	55	5.85	19.05	29.845	29.787	29.816	29.816	30.233	29.213	1.020	.143
May	55.40	65.74	57.00	59.38	83	36	47	5.06	19.55	29.744	29.691	29.726	29.720	30.132	29.096	1.036	.156
June	69.30	79.27	70.83	73.13	91	51	40	5.29	18.55	29.783	29.742	29.739	29.754	30.062	29.528	.534	.104
July	72.74	82.87	72.69	76.10	95	55	40	3.70	19.29	29.800	29.765	29.780	29.781	29.961	29.505	.456	.078
August	68.88	79.52	71.05	73.15	94	54½	39½	3.94	16.84	29.912	29.896	29.910	29.906	30.212	29.608	.604	.098
September . . .	62.37	74.75	66.72	67.95	86	46	40	4.41	17.22	29.953	29.913	29.924	29.930	30.343	29.283	1.060	.144
October	54.32	66 61	58.69	59.87	88	34	54	5.28	16.94	29.945	29.893	29.926	29 921	30.452	29.469	.983	.166
November . . .	39.85	48.73	43.25	43.94	63½	29	34½	4.11	13.08	29.793	29.736	29.785	29.771	30.109	29.213	.896	.179
December . . .	32.52	42.26	35.88	36.88	64	19	45	5.66	14.58	30.040	29.992	30.012	30.015	30.462	29.292	1 170	.213
Annual means .	50.15	60.74	53.24	54.71	95	—1	96	5.57	16.85	29.890	29.845	29.870	29.868	30.526	29.096	1.430	.167
Winter	30.28	38.51	33.95	34.25	68½	—1	69½	6.63	13.69	29.961	29.925	29.959	29.949	30.526	29.285	1.241	.230
Spring	46.77	58.33	49.89	51 66	88	16	72	6.52	18.93	29.835	29.780	29.816	29.810	30.386	29.096	1.290	.177
Summer	70.31	80.55	71.52	74.13	95	51	44	4.31	18.23	29.832	29.801	29.810	29.814	30.212	29.505	.707	.093
Autumn	52.18	63.36	56.22	57.25	88	29	59	4.60	15.75	29.897	29.847	29.878	29.874	30.452	29.213	1.239	.163
For ten years . .	49.74	60.05	53.20	54.33	100½	—5½	106	5.61	15.19	29.892	29.853	29.877	29.874	30.704	28.884	1.820	.155

Meteorological Observations—Continued.

1861.	Relative Humidity.					Force of Vapour.							No. of days on which rain or snow fell.	Clouds. Tenths of sky covered.				Winds.	Dew-point.					
Months.	7 A. M.	2 P. M.	9 P. M.	Max.	Min.	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Rain and melted snow.		7 A. M.	2 P. M.	9 P. M.	Mean.	Monthly resultant; No. of times in 1000.	7 A.M.	2 P.M.	9 P.M.	Mean.	Max.	Min.
	p. c.	p. c.	p. c.	p. c.	p. c.	inch.	inch.	inch.	inch.	inch.	inch.	inch.							°	°	°	°	°	°
January . .	80	72	81	100	40	.128	.144	.145	.139	.244	.034	4.620	13	6.9	6.5	4.7	6.0	N. 52° 12′ W., 375	22.43	25.73	29.59	24.58	39.6	—5.5
February . .	75	52	70	100	25	.158	.169	.186	.171	.375	.023	2.124	9	5.4	6.6	5.5	5.8	S. 77° 6′ W., 354	26.56	27.89	29.67	28.04	51.1	—13.8
March . . .	69	48	66	95	21	.175	.182	.185	.181	.479	.051	3.903	9	6.1	6.1	4.8	5.7	N. 73° 37′ W., 328	28.41	28.65	30.58	29.21	57.8	3.4
April. . . .	67	42	65	95	22	.231	.226	.259	.238	.520	.109	4.150	9	5.0	6.1	4.7	5.3	N. 73° 20′ W., 177	36.44	35.68	39.45	37.19	60.1	20.3
May	63	45	63	100	18	.282	.284	.297	.288	.594	.069	6.240	13	4.2	5.5	3.9	4.5	N. 72° 48′ W., 257	42.15	41.78	43.47	42.47	63.9	10.3
June	66	52	70	94	19	.475	.512	.530	.505	.813	.142	4.485	15	6.1	6.1	3.9	5.4	S. 81° 52′ W., 176	56.69	58.75	60.04	58.49	73.1	26.3
July	71	48	72	97	32	.578	.540	.579	.567	.819	.284	2.826	14	5.2	6.1	5.9	5.7	S. 58° 43′ W., 368	62.56	60.36	62.62	61.85	73.3	43.6
August . . .	83	60	79	92	34	.602	.608	.612	.607	.841	.296	2.864	12	7.0	6.4	5.0	6.1	S. 85° 55′ E, 088	63.60	63.77	64.20	63.86	74.1	44.6
September . .	83	60	79	97	42	.476	.516	.532	.508	.770	.279	4.976	6	6.4	6.1	3.8	5.4	S. 75° 28′ W., 181	56.94	59.15	59.90	58.66	71.4	43.2
October . . .	81	60	76	97	33	.373	.415	.410	.399	.731	.122	3.597	10	7.0	6.1	4.8	6.0	N. 75° 10′ W., 211	48.65	51.43	51.07	50.38	69.9	22.7
November . .	78	58	71	96	32	.199	.210	.206	.205	.523	.099	4.613	11	5.2	6.7	5.2	5.7	N. 68° 12′ W., 324	33.48	33.90	34.04	33.81	60.3	18.1
December . .	80	62	78	95	23	.155	.175	.173	.168	.390	.069	2.016	4	6.0	5.6	3.3	5.0	N. 74° 3′ W., 383	26.90	29.49	29.80	28.73	52.1	10.4
Annual means	75	55	72	100	18	.319	.332	.343	.331	.841	.023	46.414	125	5.9	6.2	4.6	5.5	N. 81° 41′ W., 239	42.07	43.05	44.20	43.11	74.1	—13.8
Winter . . .	78	63	74	100	25	.139	.151	.155	.148	.375	.023	10.045	30	6.2	6.7	5.0	6.0	N. 65° 37′ W., 354	24.22	26.20	26.42	25.61	51.1	—13.8
Spring . . .	66	45	65	100	18	.229	.231	.247	.236	.594	.051	14.293	31	5.1	5 9	4.4	5.1	N. 73° 18′ W., 254	35.67	35.37	37.83	36.29	63.9	3.4
Summer. . .	74	53	74	97	19	.552	.553	.574	.560	.841	.142	10.175	41	6.1	6.2	4.9	5.7	S. 61° 23′ W., 156	60.95	60.96	62.29	61.40	74.1	26.3
Autumn . .	81	59	75	97	32	.349	.380	.383	.371	.770	.099	13.186	27	6.2	6.3	4.6	5.7	N. 76° 25′ W., 204	46.36	48.16	48.34	47.62	71.4	18.1
For ten years .	76	58	72	100	13	.326	.343	.347	.339	1.059	.013	44.864	126	5.9	6.0	4.4	5.4	N. 75° 37′ W., 217		43.67			79.7	—16.5

A Comparison of some of the Meteorological Phenomena of the year 1861 *with those of* 1860, *and of the ten years from* 1852 *to* 1861 *inclusive, at Philadelphia, Pa.*

Lat. 39° 57½′ N. Long. 75° 10½′ W. from Greenwich. Height of barometer, 50 feet.

	1861.	1860.	10 YEARS.
THERMOMETER.			
Highest	95° on July 8	95.5° on July 20	100.5° on July 21, 1854
Mean of warmest day	87.8 " " 8	87.7 " " 20	91.3 " " 21, 1854
Lowest	—1.0 " Feb. 8	1.0 " Feb. 2	—5.5 " Jan. 23, 1857
Mean of coldest day	+7.8 " Jan. 13	9.2 " " 2	—1.0 " " 9, 1856
Mean daily oscillat'n	16.85	17.12	15.19
" range .	5.57	5.65	5.61
Means at 7 A. M. .	50.15	49.39	49.74
" 2 P. M. .	60.74	60.35	60.05
" 9 P. M. .	53.24	52.61	53.20
" for the year	54.71	54.12	54.33
BAROMETER.			
Highest	30.526 ins. Jan. 23	30.418 ins. Dec. 14	30.704 ins. Jan. 28, 1853
Lowest	29.096 May 27	29.099 Feb. 18	98.884 Apr. 21, 1852
Mean daily range .	.167	.143	.155
Means at 7 A. M. .	29.890	29.882	29.892
" 2 P. M. .	29.845	29.833	29.853
" 9 P. M. .	29.870	29.862	29.877
" for the year	29.868	29.859	29.874
FORCE OF VAPOUR.			
Means at 7 A. M. .	.319 inch	.311 inch	.326 inch.
" 2 P. M. .	.332	.321	.343
" 9 P. M. .	.343	.329	.347
" for the year	.331	.320	.339
RELATIVE HUMIDITY.			
Means at 7 A. M. .	74.8 per cent.	74.7 per cent.	76.2 per cent.
" 2 P. M. .	54.9	54.0	57.6
" 9 P. M. .	72.5	70.7	72.5
" for the year	67.4	66.5	68.8
Rain and melted snow, amount .	46.414 inches	45.400 inches	44.864 inches
No. of days on which rain or snow fell	125 days	131 days	126 days
Prevailing winds .	N. 81° 41′ W. .239	N. 79° 43′ W. .219	N. 75° 37′ W. .217

BIRTHS, MARRIAGES, AND DEATHS.—The present report comprises the tabulated returns of the births, marriages, and deaths for Philadelphia during 1861, and the first, for an entire year, under the registration law of July, 1860.

This law having been in operation only eighteen months, no very important results can as yet be expected; still, enough has been accomplished to warrant the declaration, not only of its popularity, but of its permanent success as a statute second to none other in interest, where the great and vital questions of health, life, happiness, and prosperity of a community are involved.

It is not, however, to be disguised, that this benign law, like many other well-designed plans to promote the public welfare, has, to a limited extent,

met with opposition, while its terms by others have been acknowledged with a bad grace.

Among the clergy may be found those, who, by their delinquency in the observance of its provisions, show their utter disregard for a wholesome sanitary law, and their want of reflection as to the inestimable value of a system of vital statistics, which, in accordance with the opinion of those who have realized its benefits, "is looked upon as the greatest boon that an enlightened government could confer upon the people."[1]

Several clergymen absolutely declined to conform to the law, until threatened with prosecution, and others, again, evinced their indifference to its provisions by neglecting to furnish the items of information called for in the blank schedules sent them.

Nor is our own profession altogether exempt from the charge of opposition and unwillingness to comply with the provisions of the law.

It would be almost a work of supererogation to expatiate upon the importance of registration. When full and complete returns shall be secured, and the field of observation extended, then will its value be better appreciated.

The Hon. John R. Bartlett, Esq., Secretary of State for Rhode Island, in presenting his report to the legislature, makes the following appropriate remarks.

"The importance of a complete registration is now greater than ever. When the present war is over, and the widows and children of those who have laid down their lives in defence of their country apply for pensions and bounty lands, the registration returns must be resorted to for the evidence required by the government, of marriages and births. So in the distribution of property of deceased persons, these returns are of the utmost importance. Had our present admirable system of registration of births, marriages, and deaths, been in operation during the war of the revolution, and that of 1812, some hundreds of thousands of dollars would have been saved to the people of this State, and hundreds of families, which for years struggled in adversity, would have been made comfortable during their lives. Already these records have been resorted to, to prove marriages, where parties have been killed in the existing rebellion, whose families have applied for pensions."[2] With equal propriety these remarks will apply to our own registration law. Already have applications been made at the office, for transcripts from the registry to prove the marriage of deceased soldiers as well as to prove their death.

Births.—The number of births returned and registered for the year according to the above table has been seventeen thousand two hundred and seventy-one (17,271). This is the largest annual return ever made for Philadelphia, and is no doubt a closer approximation to accuracy than hitherto obtained.

The deaths for the year have been 14,468. The excess of births, therefore, over the deaths, has been 2803. This excess, amounting to 19 per cent., is considered to be the natural annual increase of the population.

The births averaged for each day throughout the year forty-seven and one-third ($47\frac{1}{3}$).

The male births were 9008, the female births 8263, an excess of male births equal to 9 per cent., or as 109.7 males to 100 females.

[1] Speech of Lord Elcho, House of Commons, 1854.

[2] Rhode Island Register Report, 1860. Submitted to legislature December, 1861.

TABLE I.— *Table of Births under the new Law of Registration, for the year ending December* 31, 1861, *with the Wards, Sexes, and Colour designated, together with the Percentage of Births to Total Births, and Ratio of Births to Population of each Ward.*

Months.	Births.		Black.		Stillborn.		Twins.	Triplets.	Wards.										
	M.	F.	M.	F.	M.	F.			1	2	3	4	5	6	7	8	9	10	11
January	844	658	9	17	39	27	12	..	93	87	66	69	36	36	58	29	33	45	72
February	795	679	12	12	29	27	16	1	85	78	54	61	40	40	61	32	35	50	53
March	844	724	15	14	26	24	24	..	94	80	56	59	37	36	52	39	34	49	46
April	728	595	21	9	39	26	12	..	114	54	44	63	33	25	52	20	25	40	48
May	652	634	10	7	27	17	16	..	89	48	32	43	24	27	49	32	40	43	47
June	662	683	14	8	26	20	14	..	88	68	38	48	40	33	60	47	43	41	37
July	792	703	14	17	38	20	13	1	100	68	57	56	35	35	72	39	33	49	36
August	761	728	8	20	31	26	13	..	116	58	37	48	45	43	70	31	51	41	56
September	729	711	14	12	33	17	10	..	97	62	42	51	51	41	60	38	50	43	46
October	702	716	10	12	31	24	11	..	109	65	42	64	27	29	80	36	36	49	40
November	757	696	12	16	23	18	9	..	114	59	45	49	36	31	78	45	48	57	45
December	742	736	8	18	22	20	12	..	112	62	39	66	28	43	80	38	42	41	61
Total	9008	8263	147	162	364	266	162	2	1211	789	552	677	432	419	772	426	470	548	587
Population of each ward									30,886	29,123	19,929	23,461	24,792	14,882	31,267	27,770	17,196	21,849	16,681
Percentage of births to total births									6.43	4.56	3.13	3.91	2.50	2.43	4.46	2.40	2.72	3.10	3.39
Ratio of births to population									25.50	36.90	36.10	34 65	57.36	35.51	40.50	65.19	36.58	39.87	28.41

Months.	Wards.													Wards not given.	Total.
	12	13	14	15	16	17	18	19	20	21	22	23	24		
January	41	36	61	70	73	80	50	95	95	39	49	51	97	41	1,502
February	58	42	64	91	56	88	46	114	94	37	39	50	60	46	1,474
March	37	51	69	97	59	85	54	113	106	49	52	58	80	76	1,568
April	39	35	53	88	50	73	43	93	84	36	39	48	63	61	1,323
May	48	40	61	80	46	57	45	108	85	35	42	47	74	44	1,286
June	47	45	55	85	55	75	48	100	91	33	25	41	61	41	1,345
July	34	43	65	94	41	73	65	132	84	40	56	56	88	44	1,495
August	54	48	67	98	60	77	56	88	70	37	53	58	77	50	1,489
September	43	43	74	79	46	77	54	85	94	40	50	70	58	46	1,440
October	47	40	59	103	70	76	43	105	68	45	44	54	52	35	1,418
November	38	61	63	90	60	88	45	84	74	33	36	62	81	31	1,453
December	49	38	63	93	48	104	50	112	98	41	39	42	53	36	1,478
Total	535	522	754	1068	664	953	599	1229	1043	465	524	637	844	551	17,271
Population of each ward	16,681	20,045	24,258	32,091	20,067	23,264	20,441	38,828	29,963	17,159	17,173	23,985	23,738		
Percentage of births to total births	3.09	3.02	4.35	6.18	3.84	5.51	3.46	7.11	6.05	2.69	3.03	3.68	4.88		
Ratio of births to population	31.17	38.40	32.17	30.04	30.22	24.41	34.12	31.59	28 72	36.90	32.76	37.65	28.12		

The ratio of births to population, fixing the population at the census returns for 1860, which is 565,529, would be one in every 33 persons living.

This ratio is greater than that of Massachusetts or Rhode Island for 1859, and something less than that of Boston for the same year.

The births for each month arranged according to the different seasons of the year will give the following result :—

Months.	Births.	Months.	Births.	Months.	Births.	Months.	Births.
December . .	1478	March	1568	June	1345	September . .	1440
January . . .	1502	April	1323	July	1495	October . . .	1418
February . .	1474	May	1286	August . . .	1489	November . .	1453
	4454		4177		4329		4311

According to this arrangement the winter season gave the greatest number of births, while the three spring months gave the least, but were the most prolific in conceptions.

The greatest number of births occurred in March, the least in May.

The highest number of births returned for any one ward was 1229, from the 19th, which has the largest population, numbering 38,828. The next highest was from the 1st ward, returning 1211 out of a population of 30,886. The 15th ward with a population of 32,091 gave 1068 births.

The lowest number of births recorded for any one ward, was 419, from the 6th, having the smallest population, viz. 14,482.

The following table gives the proportion of births by percentage in each ward, to the whole number of births as compared with the proportion of deaths in each ward to the whole mortality.

Wards.	Per cent. of births.	Per cent. of deaths.	Wards.	Per cent. of births.	Per cent. of deaths.	Wards.	Per cent. of births.	Per cent of deaths.
1	6.43	6.05	9	2.72	2.47	17	5.51	5.72
2	4.56	5.24	10	3.10	2.92	18	3.46	4.12
3	3.13	2.77	11	3.39	3.13	19	7.11	7.50
4	3.91	4.70	12	3.09	2.51	20	6.05	5.59
5	2.50	3.38	13	3.02	2.74	21	2.69	2.29
6	2.43	1.98	14	4.35	2.94	22	3.03	1.71
7	4.46	5.07	15	6.18	5.31	23	3.68	3.00
8	2.40	2.96	16	3.84	3.66	24	4.88	3.38

The proportions as given in this table of comparisons between the percentage of births and the percentage of deaths, present a very different variation in some instances to what should be expected. In the 8th ward, which I have in this report designated as the healthiest, the percentage of deaths exceeds that of the births, while in the 17th ward, the most unhealthy, the percentage of births is nearly equal to that of the deaths. A like variation prevails in the 19th ward.

The 24th, 22d and 14th, present the greatest contrast between the births and deaths, in favour of the former.

In the remainder of the wards the percentages do not vary to any great extent, the preponderance, however, being on the side of the births. Births are said to indicate the material prosperity of a community, as known by its numerical growth ; according to the above table, there is an indication of diminution of material prosperity in eight of the wards.

It would be altogether conjectural, in the present incipient state of our returns, to assign any special reason for what might be looked upon as

contrary variations in the figures of some of the healthy wards, or to attempt an explanation for the limited births in these wards. It is satisfactory, however, to know that, in the aggregate, the increase of our population over the deaths by births has been 19 per cent.

The number of births of children of colour amounted to 309. The sexes were, 147 males, and 162 females, an excess of 10.30 per cent. of the latter; a higher rate than among the white births.

In the births returned, there were 551, in which the location or name of the wards was not given.

There were returned 162 cases of twins and two cases of triplets.

The still-births amounted to 630. The excess of males over females, which was 98, equal to 36.84 per cent., is as remarkable as it will be unaccountable.

MARRIAGES.—In Table II. will be found the marriages registered during the year, with the ages of the parties.

TABLE II.—*Ages of Parties Married in the City of Philadelphia and Registered for the year ending Dec.* 31, 1861.

		AGES OF WOMEN.									TOTAL OF THE MEN.	PERCENTAGE OF GROOMS.
		Under 20.	20 to 25.	25 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	Age not given.		
AGES OF THE MEN.	Under 20	15	1	..	..	..	..	..	..	..	16	0.36
	20 to 25	659	826	98	19	..	..	..	..	8	1610	36.47
	25 to 30	208	680	349	79	5	1	..	..	11	1333	30.17
	30 to 40	60	258	261	178	29	1	..	..	2	789	17.86
	40 to 50	8	36	62	94	45	..	..	..	2	247	5.59
	50 to 60	1	6	6	28	30	4	1	..	..	76	1.74
	60 to 70	..	1	3	6	4	7	..	..	..	21	0.47
	70 to 80	..	..	..	..	2	..	2	..	..	4	.09
	Age not given	2	4	2	..	..	..	..	..	313	321	...
TOTAL OF WOMEN		953	1812	781	404	115	13	3	..	336	4417	...
PERCENTAGE OF BRIDES		21.34	41.04	17.67	9.14	2.60	0 29	.06	..	..	..	...

This table is arranged in order to show the number of marriages where the parties are of the same or different quinquennial periods of life.

The number of marriages solemnized for 1861 have been 4417.

Of these, 953 or 21.34 per cent. of the brides were under twenty years of age, and only 16 or .36 per cent. of the grooms were under age.

Of the brides between twenty and twenty-five, there were 1812 or 41.04 per cent., and of the grooms at the same period there were 1610 or 36.47 per cent.

Between twenty-five and thirty, there were 781 or 17.67 per cent. marriages of brides, and 1333 or 30.17 per cent. of grooms.

Between thirty and forty, there were marriages of 404 brides and 789 grooms.

There were four grooms between the ages of seventy and eighty, and three brides between sixty and seventy.

The most frequent age for marriage in both sexes was between twenty and twenty-five. There were 41 per cent. of females and 36.47 per cent. of males.

Nearly two-thirds of all the females when married were under twenty-five years of age, and 80 in each hundred were under thirty.

The ages of 336 of the females and 321 of the males have been omitted in the returns.

This omission on the part of clergymen may be from carelessness (it can hardly be attributed to ignorance), but I am more disposed to charge it to indifference. If all clergymen would reflect upon the injustice that a neglect of a proper registration of marriages may entail upon the parties themselves, or upon their posterity, they would be more careful to comply with the provisions of the law and more ready to make their returns.

In Table III. will be found a record of the nativity of the brides and grooms, whether American or foreign.

TABLE III.—*Number of Marriages in the City of Philadelphia Registered for the year ending Dec.* 31, 1861, *with Nativity of the Brides and Grooms.*

NATIVITIES.		BIRTHPLACE OF BRIDES.			TOTAL OF GROOMS.
		United States.	Foreign.	Not given.	
BIRTHPLACE OF GROOMS.	United States . . .	2200	256	17	2473
	Foreign	380	1326	17	1723
	Not given	28	10	183	221
TOTAL OF BRIDES		2608	1592	217	4417

Of the whole number of persons married 5081 were born in the United States, equal to 57.51 per cent. and 3315 were born in foreign countries, equal to 37.52 per cent. The birth places not named occurred in the case of 438 persons that entered into wedlock.

Of the brides 2608 or 59 per cent. were born in the United States, and 1592 or 36 per cent. were of foreign birth, while of 217 the birth places were not given.

Of the grooms 2473 or 55 per cent. were American born, while 1723 or 39 per cent. were born abroad. The place of birth was not given for 221.

The record shows, that in 2200 or 49 per cent. of the marriages both parties were Americans, and in 1326 or 30 per cent. both parties were foreigners.

In 380 instances, equal to 8 per cent., American women married foreigners, and in only 256 instances, equal to 5 per cent., did American men marry women born abroad.

DEATHS.—The following is a general summary of the mortality for the year as found in Table 4, and is arranged to present the deaths of the white and coloured population; the males and females; the adults and minors; the sexes, together with the number of deaths from disease, still deaths, old age, unknown, and external, or accidental causes.

General Summary of Deaths for 1861.

White	13,754	
Coloured	714	
Total		14,468
Males	7,582	
Females	6,886	
Total		14,468
Male minors or children	4,800	
Female " "	4,217	
Total minors	9,017	
Male adults	2,782	
Female adults	2,669	
Total adults	5,451	
Total		14,438
Deaths from registered diseases	13,063	
Deaths from stillborn	630	
Deaths from old age	203	
Deaths from unknown external and accidental causes	572	
Annual total of deaths from all causes		14,468

Under an act of the legislature of March 8th, 1860, for the registration of births, marriages, and deaths, for the city of Philadelphia exclusively, and which was initiated according to its provisions, July 1st, of the same year (1860), the number of deaths registered for 1861 have amounted to fourteen thousand four hundred and sixty-eight (14,468).

This is the highest number of deaths ever returned for our city during a single year, and I have every reason to believe is a more accurate record of our mortality than has before been presented.

In my report for 1858, I referred to the incompleteness of our tables of mortality, arising from defective returns under the health law, as it then existed, and suggested that proper allowance should be made for this imperfection. At the same time I stated the impracticability of obtaining more accurate returns, until a better system of registration should be established through legislative enactment. This desirable improvement has now

been secured, and I trust that hereafter the returns made through the registration department of the Board of Health, will be full and reliable.

By a comparison with the death returns for 1860, viz., eleven thousand five hundred and sixty-eight (11,568), it will be seen that there has been an unusual augmentation during 1861. The increase for the year amounts to twenty-nine hundred (2900), and is equivalent to 25 per cent. over those of the former year.

This large increase in the number of reported deaths in our city, very naturally suggests the inquiry, to what cause or causes is it to be attributed?

It is due, in the first place, to the operation of the registration law, which enables us to secure more correct returns. One evidence in proof of this opinion may be gathered from the fact, that since the initiation of the registration law, death returns have been received weekly at the health office, from upwards of forty places of interment, located principally in the more distant suburbs, from which no returns had hitherto been received.

Another reason is, that formerly the dead taken out of the city for burial were not included in our bills of mortality. Under the present law, undertakers are required to furnish a certificate of death for registration, and receive in return from the health office a certified transcript from the record of said death, which certificate accompanies the body as the voucher, for the cause of death.

In addition, there has existed another, and a far more unmistakable cause for the large addition of deaths during the year. This will be found in the remarkable and protracted prevalence of no less than three epidemics simultaneously, to wit, scarlet-fever, smallpox and diphtheria.

For the entire year, and to an extent hitherto unknown in this city, throughout every section, from the most healthy and most pleasant rural districts, through every transition of location down to the very extremes of filthy and wretched homes in the more crowded and unhealthy wards, were these diseases to be found committing their deadly ravages. In some neighbourhoods they extended from house to house, carrying off two and three children of a family. They appeared to be uninfluenced by the seasons of the year, or the extremes of temperature.

Presenting distinct features in their symptoms, and unlike in their pathological conditions, yet in their origin they were, no doubt, connected by a mysterious bond of union. This union springing from and dependent upon some unknown distempered influence, familiarly known as an epidemic influence, either meteorological or terrene, or both, forming poisons which, through the intervention of a secret power, develops their peculiar effects upon systems already predisposed to disease; imparting to the blood, in one, smallpox, in another scarlet-fever, and in a third diphtheria.

"It has been a subject of frequent observation," remarks Dr. Wood, "that a certain epidemic tendency after continuing for several years, will be followed by another of a different kind, which in its turn will give way to the former tendency, or to a third different from either."[1] In the present instance, however, the prevailing epidemic influence has, in some respects, observed a modified course from the peculiarity noticed above. Three destructive epidemic diseases have simultaneously pervaded the same neighbourhoods, and even the same families.

It becomes an interesting question for pathological investigation into the laws governing the inception and progress of epidemics, whether these

[1] Wood's Practice, vol. i. p. 163.

several diseases owe their origin to the influence of specific poisons, in conformity with the prevailing sentiment of authors, or whether, according to a theory originating, I believe, with the late Dr. E. S. Barton, as to the origin of certain zymotic diseases, they too have no dependence upon special poisons, but are the result of certain combinations varying in their several definite proportions, of the two conditions, aerial and terrene, which constitute the epidemic influence that has been in active existence for several consecutive years in our city.

Dr. Wood remarks on this point, "Whether the epidemic influence is alone sufficient to produce smallpox, scarlatina and other contagious eruptive affections, which sometimes become epidemic, without the co-operation of the specific contagion is perhaps questionable. It is highly probable that it may be so; as these diseases occasionally occur epidemically without any known communication between the individuals first attacked, and others previously affected." Again, he says, "Sometimes the epidemic influence predisposes to some one, especially of the exanthemata, as to smallpox on one occasion, measles on another, &c.; sometimes the tendency seems to be towards eruptive diseases in general."

This opinion is by no means at variance with the views of Dr. Barton, and concedes, in part, his theory.

It may prove of some degree of interest at the present time, when the aggregate mortality for the year has so far exceeded that of any former one to compare the death rate of one year with another for the past few years. For this purpose I have prepared the following statistical table of mortality; including the population, the deaths to population, and the deaths in each one thousand living, for eight consecutive years, commencing with eighteen hundred and fifty-four, when the city was consolidated, and embraced in its area the entire county.

To arrive at the aggregate population for each year, I have taken as a basis the 7th census return of the city and county, for 1850, which was set down as four hundred and eight thousand seven hundred and sixty-two (408,762). Computing the annual increase of our population to be $3\frac{1}{2}$ per cent., which is a fraction over the average, as furnished by the 8th census of 1860, but, in my estimation, rather below than above the actual standard, I have calculated the average increase on that apportionment for each successive year, including 1861.

Year.	Deaths.	Population.	Deaths to population.	Deaths to each 1000 living.
1854	11,815	469,059	1 in 39	25
1855	10,457	485,475	1 in 46	21
1856	12,334	502,466	1 in 40	24
1857	10,895	520,051	1 in 47	20
1858	10,697	538,252	1 in 50	20
1859	9,742	557,090	1 in 57	17
1860	11,568	576,587	1 in 49	20
1861	14,468	596,766	1 in 41	24
Aggregate	91,976	4,245,746	1 in 369	21
Average	11,497	530,718	1 in 46	21

This octuple calculation gives a mean of 11,497 deaths annually in an average population of 530,718.

It also makes the average of deaths to population during a period of eight years as 1 in every 46; while the average deaths for each thousand living, were twenty-one (21).

By exhibiting this table, I am able to demonstrate that while our returns of deaths for 1861, in point of numbers, certainly have been far above those of any former year, yet in proportion to population, they indicate rather a decline than an increase of mortality, when compared with two of the eight years, viz., 1854 and '56; the former giving 1 in 39, and the latter 1 in 40 of the population, whereas 1861 gave 1 in 41, although the aggregate number of death-returns rates the highest.

The average deaths in each thousand living of the population, as furnished by this table is 21, and during these eight years the deaths ranged from 17 to 25. This, therefore, should be viewed as a fair average of our city mortality, provided the record is reliable.[1]

In the 20th report of the Registrar-General of England, seventeen in each thousand living has been assumed as the natural proportion of deaths, and "all deaths exceeding that number are to be considered as unnecessary." To some extent this standard may be viewed as correct, provided the calculation is made from salubrious districts, which do not embrace within their limits large cities or numerous towns, as were the 64 districts selected from various parts of England, from which the above calculation was made.

In Rhode Island, the average of deaths to each thousand living for the period of seven years, was but thirteen.

In 1860 the deaths in a thousand were fifteen. In Massachusetts, for 1859, they were seventeen. In Scotland the rate is nineteen, and in England twenty two in each thousand.

In cities it will be found that the proportion will always be higher than in country districts, and, from causes that are continually pressing upon the population, producing unnecessary disease and premature death. Take as an example the city of Providence, one of the best regulated and healthiest cities in this country, although not one of the largest class in point of population, and it will be seen that the annual average of deaths is 20 in each thousand living.

This I believe should be considered, under favourable circumstance, a reliable average for cities, and I am confident that if proper attention were given by our municipal corporation for the correction and removal of those existing evils which produce sickness, and swell our bills of mortality, the death rate would compare favourably with that of Providence.

In Boston, where great care is observed in carrying out the registration law, the deaths to one thousand living, during a term of nine years, ranged from 21 to 26. Our own city, therefore, in the past eight years, presents somewhat a more favourable range than Boston, being from 17 to 25 according to our mortality returns, for which, however, some allowance may have to be made for their completeness.

Monthly Mortality.—The following table furnishes the deaths for each month throughout the year. It shows the mortality of males and females, adults and children or minors (that is all under twenty), in separate columns.

[1] If the calculation be made according to the last census returns, it makes our death rate still more unfavourable, giving us 1 death in every 39 of the population.

Return of Deaths in each Month, showing the number of Deceased Males and Females, Adults and Children, for the year 1861.

1861. Months.	Males.	Females.	Adults.	Children.	Total.
January	664	652	513	803	1,316
February	589	534	460	663	1,123
March	596	549	455	690	1,145
April	757	652	555	854	1,409
May	564	552	424	692	1,116
June	546	508	384	670	1,054
July	1,012	846	495	1,363	1,858
August	742	665	424	983	1,407
September . . .	510	474	383	601	984
October	589	529	464	654	1,118
November . . .	488	419	435	472	907
December . . .	525	506	459	572	1,031
	7,582	6,886	5,451	9,017	14,468
	14,468		14,468		

July gave the highest number of deaths, 1858, or a fraction less than 13 per cent. of the entire mortality. The three summer months, June, July, and August, contributed 4,319 of the deaths, equal to nearly 30 per cent. of the annual mortality.

With two exceptions, the deaths in every month exceeded one thousand. September gave 984, while November, the lowest, gave 907.

The highest number of deaths of minors was in July, 1363. August furnished 983, and June 670. These three months contributed 33.44 per cent. of all the mortality among minors.

The excess of deaths of males over females is shown to be 696. That of children over adults, 3566.

Annual Mortality.—Of the deaths reported for the entire year (see Table 4), seven thousand five hundred and eighty-two (7582) were males, and six thousand eight hundred and eighty-six (6886) were females: this gives, as usual, the excess to the number of males, equal in this instance to 10 per cent.

Of the deaths under twenty years of age, classed as minors, there were nine thousand and seventeen (9017); those beyond twenty, or, adults, amounted to five thousand four hundred and eighty-one (5481); showing an excess of deaths in children equal to 64.51 per cent. over those in adults.[1]

The mortality in children under five years of age was seven thousand four hundred and six (7406), and when compared with the entire mortality for the year, is equivalent to fifty-one (51) per cent., while the number under ten years was eight thousand four hundred and twenty-four (8424), or 61 per cent. of the whole mortality.

This is an appalling item in the record for 1861, viz., that children under ten years of age should contribute 61 per cent., more than one-half the

[1] The still-born children, amounting to six hundred and thirty, are included in the above deaths.

amount of deaths! This excessive mortality, I apprehend, is not sufficiently appreciated by our profession, or adequately understood by our municipal authorities.

This destruction of life in helpless infancy has attained such gigantic proportions as to demand from the profession of medicine a careful and thorough investigation into the causes which are productive of such an unnecessary amount of disease and death in children of tender years; and from the civil authorities, energetic and systematic efforts in the adoption of adequate measures for the removal of the various sanitary evils detrimental to health, by the enforcement of a stringent sanitary police reform. That something more is required than is now being accomplished either by our Board of Health or corporate authorities for the prevention of disease in our city is too evident to require a single argument. The statistical fact I have presented of the fearful mortality among children is enough. Volumes of reasoning could not be more convincing.

If the inquiry is made, what is to be done? I answer, everything. The first decided movement is yet to be taken, in the direct line of sanitary reform, by our Councils. When have they ever ordered an inquiry either by a committee or commission, into the sanitary condition of our city? The City Surveyor, the Chief Engineer of the Water Department, the Commissioner of Highways, and the Board of Health, through their valuable and highly interesting annual reports to the Mayor and Councils, have adverted in emphatic language to numerous sanitary defects—while the Mayor, in a spirit befitting his office, with a prompt and cheerful devotion to all the interests of the city, has been careful to direct their attention to those recommendations which appertain to the improvement of the health of the city. How far these vital interests have received that attention which their importance deserves—let the proceedings of Councils answer.

It is deeply to be regretted that the sanitary police of cities is not or will not be understood by corporations. Nor is it less to be regretted, that the occurrence of a high rate of infant mortality, year after year, one of the direct results of sanitary neglect, should have received no attention whatever from our city corporation.

No expense should be regarded as useless or extravagant, that contemplates the preservation of the health of a community. It is no wise economy to overlook the requirements of public hygiène. The neglect of it is sure to entail a burden upon the corporation. It introduces disease, and ends in death. It retards industry, encourages idleness, induces poverty, and invites both social and moral degradation.

On the other hand, the inculcation and enforcement of a system, that will investigate sanitary evils, and correct the abuse of the laws of health and life, will not only protect the health of a community, but enhance their intelligence, increase their wealth, and add to their happiness, in a social, moral, and physical relation.

If it be regarded as expedient for the security of the peace and good order of society, to establish a well regulated and competent police force; of how much more real value is it to the interests of a community to secure and enforce systematic health police regulations, in order to guard, as far possible, the health of citizens, and to search out and cause to be arrested and removed, all nuisances of a public or private nature, that are prejudicial to health. It is high time that the distinguished philanthropy of our city, had turned its active benevolence into the long neglected channel of public hygiene.

Wise and judicious municipal laws are being enacted to promote our commerce, to protect our property, to maintain our rights, to regulate business, to preserve order, to detect dishonesty, and to secure amusement for the pleasure seeker—but how seldom has city legislation been drawn to the enactment of ordinances for the promotion and better preservation of the health of the people—a field of inquiry which underlies every other interest. To take care of the health is not only a moral obligation but a sacred duty which every corporation owes its citizens.

Mortality in Wards.—A very interesting and instructive comparison will be found in the following table of the deaths in each ward, with those of one ward with another; going to show the unhealthiness of some sections of our city, with the healthiness of other sections.

Mortality in each Ward, with the Population (according to the late Census), the ratio of Deaths to Population, the Percentage of Deaths in each Ward to the Total Mortality, and Deaths in each thousand of the Population. Also the Deaths from unknown Wards, from the Almshouse and from the Country.

WARDS.	Population last census.	Deaths.	Deaths to population.	Per cent. of deaths to total mortality.	Deaths in each thousand of population.
First	30,886	875	1 in 35	6.05	28.22
Second . . .	29,123	758	1 " 38	5.24	26.13
Third	19,929	400	1 " 49	2.77	20.00
Fourth . . .	23,461	681	1 " 34	4.70	29.17
Fifth	24,792	488	1 " 50	3.38	17.91
Sixth	14,882	286	1 " 52	1.98	19.06
Seventh . . .	31,267	733	1 " 42	5.07	23.60
Eighth . . .	27,770	427	1 " 65	2.96	15.81
Ninth	17,196	356	1 " 48	2.47	20.94
Tenth	21,849	422	1 " 51	2.92	19.18
Eleventh . . .	16,681	452	1 " 36	3.13	26.58
Twelfth . . .	16,681	362	1 " 46	2.51	21.29
Thirteenth . .	20,045	397	1 " 50	2.74	19.85
Fourteenth . .	24,258	426	1 " 56	2.94	17.75
Fifteenth . . .	32,091	768	1 " 41	5.31	24.00
Sixteenth . . .	20,067	529	1 " 37	3.66	26.45
Seventeenth . .	23,264	828	1 " 28	5.72	36.00
Eighteenth . .	20,441	596	1 " 34	4.12	29.80
Nineteenth . .	38,828	1,085	1 " 36	7.50	27.82
Twentieth . .	29,963	809	1 " 37	5.59	26.96
Twenty-first . .	17,159	332	1 " 51	2.29	19.53
Twenty-second .	17,173	248	1 " 69	1.71	14.58
Twenty-third .	23,985	434	1 " 55	3.00	18.08
Twenty-fourth .	23,738	489	1 " 48	3.38	20.37
Unknown . . .	.....	446	.....	.....	.....
Almshouse . .	.....	543	.....	.....	.....
From the country	.....	298	.....	.....	.....
Total for 12 mos.	.....	14,468			
Total population	565,529				
Ratio of deaths to population		.....	1 in 39		

We have here the population of the several wards as given by the census for 1860; the number of deaths, the deaths to population, and the deaths

in each thousand of the population of the ward, together with the percentage of deaths in each ward to the total population for the year.

The highest mortality registered against any single ward was 1085. This was the 19th, with a population exceeding that of any other ward, amounting to thirty-eight thousand eight hundred and twenty-eight (38,828). This is not, however, the most unhealthy ward, rating the fifth in the line of descent from the most unhealthy, the deaths being 27.82 in each thousand of its population. The most unhealthy ward was undoubtedly the seventeenth (17th). This ward contains a population of twenty-three thousand two hundred and sixty-four (23,264), supplying eight hundred and twenty-eight (828) deaths, which is equal to 36 in every thousand of its population.

The eighteenth, the fourth, and the first, in the order I have placed them with the 17th and 19th, all of them crowded and defective in sanitary improvements, are by far the unhealthiest group in the twenty-four wards of the city. They have contributed 28 per cent. of all the deaths for the year.

The seventeenth is a densely crowded ward, located in a section of the city known formerly as West Kensington. Its population is made up chiefly of the working classes. Many of these people are poor, live in rooms badly ventilated and badly located in narrow alleys and contracted courts, with barely breathing space for room; while many of the tenements are miserably constructed for a proper supply of air and light, and are mostly over-crowded. The streets and other thoroughfares in this ward are generally damp and filthy, with foul gutters, and a large portion of the inhabitants are by no means remarkable for habits of cleanliness.

By reference to the table of mortality for the year, it will be found that three hundred and thirty-seven (337) of the deaths in this ward, equal to 40.70 per cent. were from zymotic or epidemic, in other words, preventable or unnecessary diseases. Classed among these deaths were ninety-nine (99) from scarlet fever; ninety-seven (97) from smallpox; forty-four (44) from diphtheria; forty (40) from cholera infantum; thirty-three (33) from marasmus; forty-seven (47) from convulsions, and fifty-one (51) from debility.

The lowest number of deaths registered for any one ward was two hundred and forty-eight (248), in the 22d containing a population of seventeen thousand one hundred and seventy-three (17,173). It is an open country or rural district, a large territory, with a sparse population, and this population one among the smallest, making the fifth in the upward scale in numbers, and rates the healthiest from every stand point in which it may be viewed. In the table, it contributes only 1 death in every 69 of its population; 1.71 per cent. only of the entire mortality, and not more than 14.58 in every thousand of its own population. This ward embraces within its boundaries the beautiful and attractive suburban village of Germantown, with its elegant mansions and cottage residences, its handsomely embellished gardens, its rich meadows, its shaded parks and spacious pleasure grounds. Thus rendering it, connected as it is by easy and rapid railroad conveyance to the business marts of the city, a favourite and healthy rural residence.

The ward containing the smallest population is the sixth, which numbers only fourteen thousand eight hundred and eighty-two (14,882), is located in the old city proper, and has a Delaware front extending from Chestnut up to Vine Street. It returned two hundred and eighty-six (286) deaths,

equal to nineteen (19) in every thousand of its population. This ward in former years was densely populated and contributed its full share of deaths. The intrusion of places of business has driven many families beyond its boundaries, which accounts for its limited population and deaths; at the same time it will be observed that the proportion of deaths to population is not as favourable as some other wards centrally located. The fifth, an adjoining ward, having as deep a front on the Delaware, and containing a population of twenty-four thousand seven hundred and ninety-two (24,792), gave but 488 deaths, which is 17.91 in each thousand of its population.

The eighth ward, extending from Spruce to Chestnut Street, and from Seventh Street to the Schuylkill River, with a population of twenty-seven thousand seven hundred and seventy (27,770), supplied only four hundred and twenty-seven (427) deaths, or (15.81) for every thousand of its population. Out of all the city or built up wards, considering its location, the eighth appears to be the most favourable for health. It contributed no more than six deaths from smallpox; thirteen from scarlet fever; five from diphtheria; nine from typhoid fever; and twenty-one from cholera infantum. The sanitary condition of this ward, superior I believe to any other, is to be accounted for by its ample domiciliary conveniences, the absence of small alleys and confined courts containing crowded and filthy residents, together with the observance of care to prevent the accumulation of kitchen and other offal in the yards, gutters, and streets.

The fourteenth ward, bounded by Vine and Poplar, Tenth and Broad Streets, may also be placed with those wards which enjoy a good share of health and return only a limited number of deaths.

Enough probably has already been gathered from the statistics of this table, in order to illustrate the comparative difference in mortality between those wards enjoying the benefits arising from a more or less improved sanitary condition, and others less favoured, or, which are wanting in many of those important arrangements which exercise almost a controlling influence over the health of a neighbourhood.

A proper attention to the hygiene of our city by the civil authorities, would in my judgment not only lessen many of the moral evils prevalent in the community, but would reduce the weekly bills of mortality 25 per cent. or even more, and save hundreds of lives annually, that are now lost through the fatal influence of preventable diseases.

Table V., Class 1. Zymotic Diseases.—Those which have an epidemic, endemic or contagious character and originating from specific or local causes which are removable. Hence, the diseases named here are in a great measure preventable, are unnecessary, and are a manifest source of premature death in our community, especially with the infant population.

This class I consider to be the most important of all the classes, as affording an index to the salubrity or unhealthiness of the year. It will be the touchstone in every city of the excellency or neglect of sanitary regulations. The deaths in 1861 under this head have amounted to four thousand and sixty-four (4,064). Comparing this number with those of the same class for 1860, which were twenty-two hundred and seventy-five (2275), I find an increase of seventeen hundred and eighty-nine (1789), equivalent to 78.59 per cent.

This extraordinary increase may be covered by the prevailing epidemics, scarlet fever, smallpox, and diphtheria from which there have been recorded twenty-four hundred and fifty (2450) deaths, which are equal to 60.30 per cent. of all the deaths from zymotic diseases.

This mortality holds a relation to the total of deaths for the year of twenty-eight per cent., or, as one in every three and a half.

It is by diseases belonging to this class that the life of infants is rendered so precarious, and to them we may legitimately ascribe a large majority of the deaths among children in our city.

If I adopt the views entertained by an eminent statistician and sanitarian of New York, that convulsions, dropsy of the head, marasmus, pneumonia, phthisis, inflammation of stomach and bowels, scrofula and still-births, are due to internal domiciliary circumstances "which we can absolutely prevent," I could swell the number of deaths from diseases of the order over which we have "entire control" and which should not exist, twofold. I am not, however, thoroughly convinced as to the correctness of the opinion that the diseases above enumerated, do depend exclusively upon causes that can be eradicated. That several of them may occasionally be produced, and others, perhaps all of them, be greatly aggravated through the influence of internal domiciliary circumstances, and the entire neglect of public sanitary improvement, I am ready to concede; but I take issue to the assertion that pneumonia, phthisis, convulsions, dropsy of the head, inflammation of the stomach and bowels, and still-births may be exterminated by the enforcement of sanitary laws and ordinances.

Without the addition of these diseases, many of which are peculiar to infancy, the record reveals the startling fact that three thousand four hundred and seventy-four (3474) or 85.45 pr. ct. of the deaths from zymotic diseases were selected from that interesting and tender class of the community—the infants and children of our family circles. Of this number, three thousand three hundred and five (3305) had not reached their tenth year.

To make this class more satisfactory to the reader and to show the periods of the year when the diseases belonging to it are most prevalent, I have divided it into four quarterly tables.

By this analysis it will be seen that the third quarter, or the three months July, August, and September, have furnished the highest mortality, amounting to 1533, and that the fourth quarter, October, November, and December, gave the least, 663.

The heaviest mortality at any age was between two and five years, amounting to eleven hundred and seventy-nine (1179). That under one year reached nine hundred and twenty-two (922).

The facilities afforded by the registration law enable me to introduce the names of those several wards or localities that have suffered most severely from this class of diseases. Nor will it be considered strange that those sections which contain numerous small, contracted, badly ventilated tenements—numerous blind courts and narrow alleys—streets imperfect in paving and drainage, oftentimes reeking with mud and other filth—sections fruitful in every variety of pestilential causes and a large part of the population of which are by no means remarkable for habits of cleanliness, and are overcrowded in their dwellings—furnish the infant victims which so largely swell our bills of mortality.

The following tables will furnish at a glance the population, the mortality from zymotic diseases, and the mortality from all diseases in each of the twenty-four wards as well as a comparison of one ward with another. The first table presenting those wards which appear to be unhealthy or where the deaths have been most numerous; the second table giving those which may be considered healthy where there have been but few deaths.

TABLE A.—*Wards in which Zymotic or Epidemic Diseases were prevalent and deaths over* 150.

WARDS.	Population.	Total deaths.	Deaths from zymotics.
1	30,886	875	247
2	29,123	758	237
4	23,461	681	171
7	31,264	733	184
11	16,681	452	151
15	32,091	768	203
16	20,067	529	183
17	23,264	828	337
18	20,441	596	233
19	38,828	1085	347
20	29,963	809	270
	296,072	8114	2563

TABLE B.—*Wards in which Zymotic or Epidemic Diseases have not prevailed extensively, and where the deaths were under* 150.

WARDS.	Population.	Total deaths.	Deaths from zymotics.
3	19,929	400	99
5	24,792	489	120
6	14,882	286	58
8	27,770	427	71
9	17,196	356	66
10	21,849	422	101
12	16,681	362	125
13	20,045	397	109
14	24,258	426	110
21	17,159	332	108
22	17,173	248	58
23	23,985	434	114
24	23,738	489	114[1]
	269,457	5067	1253

The first table A embraces eleven wards, the first, second, fourth, seventh, eleventh, fifteenth, sixteenth, seventeenth, eighteenth, nineteenth, and twentieth. In these wards, with an aggregate population of two hundred and ninety-six thousand and seventy-two (296,072) there occurred eight thousand one hundred and fourteen (8114) deaths, of which number twenty-five hundred and sixty-three (2563), or 31.58 per cent. were from zymotic or epidemic diseases.

The second table B contains the remaining thirteen wards, in which it will be seen that the death rate is much more favourable than that in the first table, particularly as regards zymotic diseases.

The population of these wards amounts to two hundred and sixty-nine thousand four hundred and fifty-seven (269,457) less than in the eleven wards of the first table, by twenty-six thousand six hundred and fifteen (26,615) or 9 per cent. while the entire mortality was only five thousand and sixty-seven (5067) less three thousand and forty-seven (3047) or 30 per cent. than in the eleven wards above enumerated, while the deaths from zymotic diseases were only twelve hundred and fifty-three (1253) or 51.10 per cent. less than those in the former eleven wards.

This shows conclusively that during the year 1861 the eleven wards of the first table have contributed the largest number of deaths from zymotic diseases, and therefore have been the *most unhealthy.*

These tables further illustrate the comparative health of the several sections of the city. Let it be remembered also that the increased mortality which I am now discussing is the unnecessary mortality alluded to by the Registrar General of England, the product of preventable diseases, the result of causes almost if not entirely within our control or removable by human agencies.

A visit for sanitary inspection through some of the eleven wards where the excess of deaths has occurred would furnish abundant evidence of their

[1] The record gives this ward 178, but 64 of these were from the almshouse, making those in the ward only 114.

relation to contagious and infectious fevers and other diseases of an epidemic and pestilential character.

Where we find imperfect sewerage and drainage, with filthy streets and gutters; domicils crowded, faulty in construction, unventilated, low; damp cellars, and basement residences swarming with an over-crowded population deficient in morality and cleanliness, living in the midst of atmospheric impurities, with a limited supply of sunlight, subsisting upon food of an inferior quality and many of them large consumers of unwholesome liquors, what less can be expected under such unfavourable circumstances, where the laws of health are daily violated and where the atmosphere is poisoned, than a large amount of zymotic disease and a heavy bill of mortality.

Unfortunately the innocent are made to suffer for the guilty. These fruitful sources of disease too frequently confine their influence to helpless infants and children, who are thus made the innocent victims of the faults and follies, or, the vices of indifferent and degraded parents. It is in such poisoned vicinities that death invariably reaps an abundant harvest.

I would not, however, be thought to convey the impression that the infant mortality of our city is confined wholly to the indigent, thriftless, degraded, and vicious families located in our crowded and more unhealthy wards. While this class of our population from circumstances incident to their manner of living furnish a heavy proportion of infant mortality, it is a sad reflection that there are errors committed in high places in regard to diet, clothing and exercise; that amongst the better provided for in the community, even where wealth abounds and where there is neither want of education nor intelligence or other favourable surroundings, the ratio of infantile mortality is far higher than it should be. Indiscretion in nursing, in feeding, in dressing, and in airing infants and children, too often prepare the way for the inception of disease and its fatal termination.

It is well known to those who have been familiar with the prevailing diseases for the past several years that we have been passing through a scarlet fever cycle. Without any interval of exemption from this epidemic, or any mitigation of its malignant character, but on the other hand a marked increased fatality of it, diphtheria made its appearance in our midst about February, 1860, and, according to the opinion of some, assumed the livery or was modified by the then prevailing epidemic; according to others, it was a form of scarlet fever itself unaccompanied by the eruption.

Dissenting, however, from these views, I have only to say, that diphtheria invaded our city in a highly malignant form, exhibiting the most distinctive and violent constitutional symptoms. In a very few months following the outbreak of this fatal disease, and before it or scarlet fever had reached their culminating points of fatality, smallpox, in October, 1860, was superadded. The year 1861 opened with these three prevailing epidemics; nor has there been any material mitigation of either disease throughout the entire year. On the other hand, there has been observed an occasional increase of the mortality, scarlet fever maintaining the ascendency in the number of fatal cases.

The total of deaths assigned to these three diseases, for the year, has amounted to 2450, as follows: Scarlet fever, 1190; smallpox, 758; and diphtheria, 502; constituting altogether nearly four-fifths of the increase of deaths over those for 1860, and falling with peculiar violence and fatality upon our infant population.

Diphtheria made its appearance in an epidemic form in the month of February, 1860, and from that time until the close of 1861 it prevailed to a greater or less extent in all parts of our city. Although sporadic cases had occasionally been met with since 1857, some of which proved fatal, yet there is no public record of a death from diphtheria until the month of February, 1860, when there were fourteen registered. An examination of the record for that month shows that the deaths from zymotic diseases had run up from seventy-six in January to one hundred and seven. Scarlet fever deaths were nearly doubled. What were the particular climatic changes which heralded this increase of epidemic influence I am at a loss to determine, there being nothing special in the meteorological data for that month.

In the month of March of that year the deaths from diphtheria were twenty-two (22); April, seventeen (17); May, twenty-three (23); June, seventeen (17); July, fourteen (14); August, thirty-five (35); September, twenty-six (26). In October they went up to sixty (60) and in November and December they averaged thirty-nine (39). January, 1861, opened with sixty-three (63) deaths; the following five months averaged thirty-seven (37), varying but little in each month until July, when they suddenly rose to sixty-three (63). The remaining five months of the year averaging thirty-seven (37) with only a slight variation.

The remarkable uniformity in the mortality for each of the ten months will not escape notice, much less the fact that during January, the coldest, and July, the warmest month of the year, the deaths from diphtheria doubled themselves, both months furnishing a like number of deaths.

It was not until July, 1860, when the registration law went into operation that any correct account could be presented of the location of particular diseases; but as I have already in a former report given the names of the wards where diphtheria was most active and proved most fatal during the last half of 1860, and as they differ in nowise from those recorded for 1861, I shall proceed to speak of the disease, the number of deaths from it, and its location and character, as it appeared in the latter year.

The whole number of deaths from diphtheria for the year 1861 were five hundred and two (502). Two hundred and fifty-four (254) males, and two hundred and forty-eight (248) females; these proportions do not favour the idea of its being more prevalent among females than males.

Four hundred and eighty-nine (489), or 95 per cent. of the deaths were minors, or, under twenty, and only thirteen (13) were adults; characterizing the disease as one peculiar to childhood. Of these deaths, four hundred and sixty-one (461), or 91 per cent., were under ten years, and three hundred and twenty-four were between two and ten years of age; coinciding with observations made elsewhere, of the particular period of infantile life most liable to an attack from this disease. Nine of the thirteen deaths in adults were under thirty, one was between sixty and seventy, and one was over seventy.

The disease has not been prevalent among children of colour; only seventeen (17), or 3.38 per cent., are charged to them.

The 1st, 17th, and 20th wards bear the heaviest mortality, averaging forty-four (44) each. The 6th, 8th, 10th, 21st, and 22d gave the least, the mean being six (6). From the remaining wards there was an approximate representation of deaths, as well in those which I have enumerated as healthy as in the more unhealthy wards. For example, in the 23d there were twenty-seven (27) deaths, and in the 14th, twenty-five (25) deaths,

these wards (the first named rural in the greater part) are rated as healthy, while in the 19th there were only twenty-nine (29), and in the 2d only twenty-two (22), whereas both of these wards contributed a heavy mortality from other zymotic diseases, and are among the most unhealthy in the list.

While I am of the opinion that diphtheria, like other epidemics, always shows a preference for those localities surrounded by unfavourable hygienic conditions, I am obliged to acknowledge that it has not been exclusively confined to similar localities since its appearance in our city.

As the above statistics prove, and as I have been an eye witness, this terrible disease was to be seen in some of our healthiest sections and in the abodes of refinement and wealth; in rural districts, remarkable for their salubrity, and under circumstances, and in families, where it would be difficult to discover tangible indications of an existing antihygienic condition of any kind whatever; and, as already shown, it has not been confined to any particular season of the year.

These peculiarities, however, are neither new nor confined to our city. In confirmation of this remark, I quote from Hart on Diphtheria as found in Slade's dissertation published in the *Am. Journ. of the Med. Sciences*, vol. xli. p. 306. Alluding to its appearance in England and France, he says:—

"It did not obey any known climatic or meteorological laws. It visited alternately the open hamlets of the rural departments, and the crowded courts of the great cities. It appeared to be equally independent of all atmospheric conditions. Was a theory formed that its intensity depended upon the solar influence, and that the heat of the summer months lent fresh force to its destructive attacks—soon it raged with greater violence in the winter months, and during the cold season—yet moderate temperature has not greatly abated its influence, and it has struck a blow here and there through all seasons."

The same writer attempts to account for its prevalence in healthy localities, amongst the upper classes of society, and of these especially, the more luxurious in their habits, that, being zymotic in its nature, it tends to fasten upon those who are debilitated from previous disease, or whose constitutions are enfeebled by the depressing influences of luxury, indolence, and inactivity, together with the violation of physical and hygienic laws consequent upon the habits of fashionable life. It is among such, he says, that "diphtheria finds its victims pale and anæmic, or grossly sanguineous and unhealthily excited."

The non-identity of diphtheria with scarlet fever, is, I apprehend, no longer a debatable question. The widely different character of the sequelæ of the two diseases, together with the "almost universal experience, that diphtheria does not protect from scarlet fever, nor, on the other hand, does scarlet fever form any defence against diphtheria," are of themselves convincing arguments in favour of the distinctive characters of these two fearful epidemics. Again, that there prevails a striking similarity between diphtheria and scarlet fever, in many of their symptoms, is indisputable, and that diphtheria frequently prevails in conjunction with scarlet fever is also universally admitted. Nevertheless, every impartial and careful observer who has encountered both affections, must arrive at the conclusion that diphtheria is a specific disease.

Without any intention of entering into the history or treatment of diphtheria, in this report, I cannot avoid a brief allusion to the after effects, or

the sequelæ of this severe disease, particularly those which exert their power upon the nervous vitality. The peculiarity of the symptoms, is a form of paralysis, attacking especially, and almost invariably, the soft palate, the muscles adjacent thereto, extending frequently to other and more distant parts of the system.

The most graphic and truthful account of the sequence of diphtheria which I have seen, is that given by M. Faure, and quoted by Slade in his valuable prize essay, to which I would refer as a complete monograph on this disease.

Two cases of diphtheria in my own practice, both of them female children, five and seven years of age, after having passed through the immediate effects of a violent attack of pharyngeal diphtheria, and considered well, presented many of the secondary symptoms in an exceedingly well-marked form; insomuch that had a doubt existed as to the true nature of the primary affection, the peculiar phenomena observed would have identified diphtheria.

The first of these cases I saw in consultation in the spring of 1861. The patient had apparently recovered from the disease, and she was believed both by the physician and parents to be approaching some form of cerebro-spinal affection. There was extreme debility of the entire muscular system, irascibility and mental dulness. The velum palati, the pharynx and muscles of the glottis were so far paralyzed as not only to give an unpleasant nasal twang to the voice, but for some time to prevent the power of speech altogether, and the act of deglutition was so much interfered with that solids could not be swallowed and fluids would frequently be regurgitated through the nostrils. The joints, especially those of the vertebræ and of the limbs, participated in the general weakness and the movements of the child in walking were tottering and uncertain, similar to those in chorea, while the features appeared to have lost in a measure the power of volition.

Great difficulty was experienced in this case in the administration of medicine, and a general hygienic course was advised. The shower bath, exercise, change of air, and a generous diet, with the addition of stimulating frictions to the spinal column and extremities were persisted in for months with only partial relief; at length a visit of several weeks to the ocean in season, with daily sea-bathing completed her entire restoration to health.

The other case is at present under treatment. The child, five years old, was stricken suddenly with diphtheria, about the middle of December, 1861, in a severe form, confining itself to the velum and pharynx, and unattended with laryngeal symptoms. I discontinued my attendance about the 1st of January, my patient having to all appearances recovered. A few days afterwards, the father called my attention to the peculiar nasal tone of his daughter's voice, and remarked that she did not gain her strength. I recognized at once the peculiar nervous effects resulting from an attack of diphtheria. For several days there will be a remission of her symptoms, affording encouragement of an improvement, again, there will be a rapid increase of her nervous debility. Her powers of speech suffer materially, owing to the relaxation and partial paralysis of the soft parts of the palate and fauces. At times, it is difficult to understand her words, while the process of swallowing food is imperfectly performed, and oftentimes, in the act of drinking, the fluid will be thrown back through the nostrils. The muscles of the face and mouth are so far paralyzed as occasionally to produce an involuntary smile, accompanied by singular contortions of the

facial muscles. There is also considerable loss of power over the muscles of the neck, preventing a steady upright position. The whole system is involved, general debility prevailing, the child has lost her vivacity, her appetite has failed, her skin pallid, her countenance dull and sunken, having lost its former lively expression.

I am treating her with nervine tonics, perchloride of iron, quinia and valerianate of ammonia, with stimulating frictions to the back and extremities; a nutritious diet, and exercise when the weather is favourable.

SMALLPOX.—The deaths from this epidemic for the year have reached the high mortality of seven hundred and fifty-eight (758). It exceeds by far the mortality of any former epidemic, and is equal to five per cent. of the aggregate of deaths for the year from all causes.

The following table gives the deaths in Philadelphia from smallpox for a series of fifty-four (54) years from 1807, the first year in which the deaths and their causes were tabulated and published by the Board of Health.

Years.	Deaths from smallpox.	Years.	Deaths from smallpox.	Years.	Deaths from smallpox.	Years.	Deaths from smallpox.
1807	32	1821	...	1835	106	1849	152
1808	145	1822	...	1836	86	1850	40
1809	101	1823	160	1837	81	1851	216
1810	33	1824	325	1838	45	1852	427
1811	117	1825	6	1839	5	1853	57
1812	...	1826	3	1840	63	1854	40
1813	...	1827	188	1841	259	1855	275
1814	...	1828	107	1842	156	1856	390
1815	...	1829	87	1843	36	1857	65
1816	97	1830	86	1844	17	1858	7
1817	52	1831	18	1845	190	1859	2
1818	8	1832	43	1846	251	1860	57
1819	1	1833	168	1847	9	1861	758
1820	...	1834	212	1848	100		
						Total	6279

This table presents the indication of what Prof. Jackson some years since pronounced an epidemic law of periodicity of smallpox. It is evident that from two to five years during this consecutive period the disease appears to have reached its maximum, and then either gradually or rapidly declined to its lowest ratio.

The aggregate of deaths for these fifty-four years has amounted to six thousand two hundred and seventy-nine (6,279). The mean number annually has been one hundred and sixteen (116).

The years which produced the heaviest mortality were 1824, which gave three hundred and twenty-five (325) deaths; 1852, which gave four hundred and twenty-seven (427) deaths; 1856, which furnished three hundred and ninety (390) deaths; and 1861, which gave seven hundred and fifty-eight (758) deaths.

Of the deaths for 1861, the proportion of the sexes was equal, viz., three hundred and seventy-nine (379).

Of these deaths, six hundred and sixty-five (665), or 81 per cent. were minors, or under twenty years of age.

Of the minors, five hundred and seventy-two (572), or 75.46 per cent. of the mortality was among children under ten years of age. The deaths under two years amounted to two hundred and sixty-four (264), or 33.36 per cent.

The inference to be drawn from these statistical facts is, that notwithstanding the ordinance for public vaccination has been so far carried out that the names of more than 10,000 persons have been returned as successfully vaccinated within the year, there must yet remain, according to the above returns of deaths from smallpox among children, many families unprotected. It is evident that these families have not been reached, either through neglect or want of proper canvassing by the collectors of cases for vaccination, or vaccination has been imperfectly performed; or else the parents or guardians or friends, through prejudice or other causes, have refused to have their children vaccinated.

That the ordinance has not been successful in protecting our city from the ravages of this loathsome disease, is a truth which cannot be disputed with the fact before us, of 758 deaths from smallpox on record for the year, of which number 75 per cent. were children, who perished prematurely, in consequence of the ignorance or misguided views of their parents.

In a former report I have alluded to the inadequacy of this voluntary provision to secure us from the ravages of smallpox, and I have elsewhere asserted my belief that nothing less than a compulsory law, with a penalty attached for its violation, would prove an effectual barrier to its introduction. No municipal ordinance can be an efficient system; and from my limited experience on this subject, I am quite prepared to adopt the sentiment of an English writer,[1] that "the absence of an efficient system of public vaccination I cannot but consider a national disgrace. I had almost said a national crime." Nothing less than legislative power applied to the whole State will prove an efficient system, or eradicate smallpox.

Another fact gathered from the mortality tables, and bearing intimately upon the importance of some legal enactment, in order to control smallpox, is, that by far the greater number of deaths have occurred in those wards where the population and the tenements are crowded, where will be found wretchedness and filth, with physical and moral depravity, and where defective sanitary arrangements abound.

In five of the lower wards, bordering on the Delaware River, and embracing within their limits locations answering the above description, there were two hundred and seventy-nine (279) deaths, equal to 36.80 per cent. of the whole number; and, again, in those wards from the 16th to the 20th, inclusive, there were two hundred and eighty-nine (289) deaths, or 38.12 per cent. of the whole. Whereas, in the ten wards from the 6th to the 15th, inclusive, embracing a population in the centre of the city, and living under somewhat more favourable circumstances, both as regards numbers, dwellings, ventilation and other sanitary advantages, there are recorded only one hundred and four (104) deaths, or 13.72 per cent. of the entire mortality.

Consequently, we have ten wards of the city, embracing a population of 222,720 souls, returning less than 14 per cent. of the deaths from smallpox, whilst other ten wards, five in the southeastern section, and five in the northeastern section of the built up portions of the city, with a combined population of two hundred and sixty thousand seven hundred and fifty-four (260,754), numbering only thirty-eight thousand and thirty-four (38,034) more than the former ten wards, returning five hundred and sixty-eight (568) deaths, equivalent to 74.92 per cent.

Nor can any more reliable information be produced, to prove that smallpox, while it does not spare any class of citizens, or pass by favourable

[1] E. C. Seaton, M. D., Trans. National Assoc., 1857, p. 430.

localities, manifests a decided preference for the more unhealthy districts, and wherever can be found a wretched, depraved and crowded population.

Smallpox has been prevailing in our city, as an epidemic, for the past eighteen months. It broke out in the 17th ward, in the month of October, 1860, and before the close of that year was found in the 1st and in the 4th wards at the southeastern extremity of the city. During October, the deaths were eleven; in November, thirteen, and in December nineteen. In all forty-three deaths. Fifteen of these occurred in the 17th ward, five in the 1st, and six in the 4th ward.

During the entire year of 1861, as the record will show, this disease prevailed in those and the adjoining wards with defiant obstinacy. The first five wards returning two hundred and seventy-nine (279) deaths, and the four from the 16th to the 20th, inclusive, in the upper part of the city returning two hundred and eighty-nine (289).

Scarlet Fever.—The heaviest mortality from any one of the diseases in the zymotic class is affixed to scarlet fever, amounting in the aggregate to eleven hundred and ninety (1190), a higher death rate than on any former year, and equal to 8.22 per cent. of the entire annual mortality.

Of the deaths, five hundred and eighty-two (582) were males, and six hundred and eight (608) females. The proportion, according to sexes, being nearly equal.

From the adult population there is recorded only six deaths, the remainder, eleven hundred and eighty-four (1184) being minors, or those under twenty years, of whom eleven hundred and fifty-six (1156) were within ten years of age. The greatest mortality during any one period of childhood was between two and five years, at which age, six hundred and eight (608) children perished.

Not a death is recorded from this disease in the Almshouse Hospital, and only three from the coloured population.

The deaths throughout the several wards differed very materially according to the location of the ward, as in smallpox; the more crowded and insalubrious wards suffered the most, while those favoured with sanitary improvements shared far less in the destructive mortality from this fatal epidemic.

The disease must have prevailed in a very malignant form in the 15th, 16th, 17th, 18th, 19th and 20th wards, as five hundred and forty-five (545) of the deaths, equal to 48 per cent., came from that cluster, all of which contain neighbourhoods highly favourable to the generation of pestilential diseases, to some of which I have already referred.

In the 20th ward there were one hundred and three (103) deaths, and the seventeenth, which I look upon as the most unhealthy of all, gave ninety-nine (99) deaths, while the 19th, the largest in population, furnished ninety-six (96) deaths.

The rural wards, embracing the 21st, 22d, 23d and 24th, contributed one hundred and twenty-nine (129) of the deaths. The five wards, viz., the 6th, 7th, 8th, 9th and 10th, furnished one hundred and forty (140); and of these the 7th, a section somewhat inimical to health, produced sixty (60).

The 1st and 2d wards gave together, one hundred and two (102) deaths. The 3d, 4th and 5th wards gave only sixty (60) deaths. The 11th, 12th, 13th and 14th wards furnishing one hundred and sixty-nine (169) deaths.

Cholera Infantum.—This endemic, confined almost entirely to cities, and prevailing during the warm season, contributed 618 deaths. Of this

number 538, or 85 per cent. occurred in the third quarter, July, August and September.

Whilst peculiar to children, it is particularly so to those under two years. In the present instance, 572 or 92 per cent. of the deaths were within that term of existence which embraces the "second summer," a season so much dreaded by mothers, and not without cause, for its destructive tendency to infant life.

Every ward in our city suffered from this disease; even the rural districts were not exempt. The 19th, 7th and 17th wards, however, contributed the highest mortality; while the 1st, 2d, 15th and 20th shared next in extent. These are among the worst wards for health in our city. The 9th, 6th and 14th wards returned the least number of deaths.

Typhoid fever caused 281 deaths.

Hooping cough is represented by 93 deaths. All of these deaths were in children under ten years of age, and 51 or 55 per cent. were within the first year.

The location of these deaths was chiefly in those wards peculiarly liable to infectious diseases, viz., the 1st, 2d, 4th, 7th, 15th, 17th, 18th and 19th, producing 61 deaths, equal to 65 per cent. of the whole. The 6th, 8th, 9th and 22d yielded none. The remaining twelve averaged $2\frac{1}{2}$ deaths.

Measles was quite prevalent during the year, but caused only 74 deaths. With the exception of 7 deaths, in the 7th ward, the force of the disease appeared to have spent itself in the upper wards of the city.

Table V., Class 2. General Seat or Sporadic Diseases.—The deaths placed in this class have amounted to 2,304, of which number the minors exceed the adults by 61 per cent. The deaths in this class constitute about 16 per cent. of the entire mortality.

The heaviest mortality from any one disease has been from debility, amounting to 826. More than 50 per cent. of these deaths were in children, of which number 341, or 80 per cent. had not reached the first year of life.

Marasmus foots up 533 deaths. Of these, 319, or 60 per cent. were within the first year of life.

Dropsy furnished 284 deaths, and inanition 124. These diseases have been very general throughout the city, the deaths having been impartially distributed.

Table V., Class 3. The Nervous System furnished 2,094 deaths, or 14.47 per cent. of the entire mortality.

Convulsions contributed 636 or 30.37 per cent. of these deaths. This disease (?) was peculiarly fatal among children. The deaths under twenty were 606, and those under one year included in this number were 345, or 54.24 per cent. of the whole.

Inflammation of the brain caused 305 deaths. This disease was also fatal among children, as 266 were under 20 years of age, and of these, 223, or 73 per cent. were under five years.

Congestion of the brain contributed 275 deaths, and dropsy of the brain 222. Of this latter disease there were only 4 adult deaths.

Of these three last diseases, the excess of deaths in male children was equal to 48.89 per cent.

Table V., Class 4. The Respiratory System.—This class of diseases, very generally make up a large share of the deaths. They number 3232 or 22.33 per cent. of the entire mortality. Three of the causes of death under this head, viz., consumption of the lungs, inflammation of the lungs,

and croup, amounting to 2802, have produced 86 per cent. of the mortality from diseases of this class.

Consumption of the lungs furnished 1817 deaths. This is an excess over those of last year of 12 per cent., and is the highest annual mortality ever recorded for this city.

The deaths of the sexes were nearly equalized. The two decennial periods between 20 and 40, furnished 898 of the deaths equal to 49 per cent.

There were 139 deaths recorded from people of colour, an increase over all former years. The increase may be the result of more accurate reports.

The deaths in persons of foreign birth amounted to 613 or 33.73 per cent. Those of American birth numbered 1008, and 196 were recorded as unknown.

Inflammation of the lungs numbered 681 victims, of which 484 or 71 per cent. were in children. During the first year of life 236 died from this fatal disease.

Croup, another infantile disease, produced 304 deaths, of these, 303 were among minors. The period of childhood most liable to croup, is between 2 and 5 years. During this ternary period there were 159 deaths equal to 52 per cent.

The sexes were nearly equalized.

Table V., Class 5. The Organs of Circulation.—Under this head I find 368 deaths. The term disease of the heart, which is too general to afford any information as to the precise character of the malady, furnishes 265, or 72 per cent., of the deaths.

The 8th, one of our healthy wards, returned 20 deaths from disease of the heart. The 7th, an unhealthy one, gave 19. Other causes than those involving a good or bad sanitary condition of the city are productive of these diseases.

There was a small increase over the deaths in this class for 1860, but a decline in those returned "disease of the heart."

Table V., Class 6. Diseases of the Digestive Organs.—Those diseases coming under this class and confined to the organs of nutrition have furnished 686 deaths, or 4.74 per cent., of the mortality. Inflammation of the stomach and bowels caused 238 deaths. Inflammation of the peritoneum 67, and cancer of the stomach 64 deaths.

Table V., Class 7. Diseases of the Urinary Organs.—The deaths under this head amounted to 109. The proportion of adults to minors was as 92 to 17. The disproportion of deaths in the sexes was very great, 78 males to 31 females.

Albuminuria, or Bright's disease of the kidneys, yielded 20 deaths, and of these 16 were males and only 4 females, a similar disproportion in the sexes I have noticed before.

Diabetes gave 12 deaths. Disease of the kidneys 29, and inflammation of the bladder 28 deaths.

Table V., Class 8. Organs of Generation.—The deaths from diseases of the generative system amounted to 95, with the exception of four, and those between 15 and 20—the deaths were in females over 20 years of age.

Cancer of the uterus caused 30 deaths. Sixteen of these were in women over fifty.

Puerperal fever gave 15, while puerperal convulsions contributed 25 deaths.

Table V., Class 9. Organs of Locomotion.—From this class there were 56 deaths. Rheumatism furnished the largest quota of deaths,

amounting to 23. Diseases of the spine under several distinct heads gave also 23 deaths.

Table V., Class 10. DISEASES OF THE INTEGUMENTARY SYSTEM.—Under this head I find but 6 deaths.

Table V., Class 11. OLD AGE contributed 203 deaths, males 66, and females 137. All vital statistics agree that females are the longest livers. This record gives 67 per cent., in favour of females. This term "Old Age" is not, I imagine, always applied in the strictest sense, as I find in the present instance one death from this cause, located between 50 and 60 years of age, and 11 between 60 and 70 years. They may have been premature.

Table V., Class 12. EXTERNAL CAUSES.—From this class, embracing accidents and violent causes, there have been returned 468 deaths, or 3.30 per cent. of the entire mortality.

Casualties, or accidents not specified, has the credit of 122 deaths. Drowned, 99. Burns and scalds, 81. Suicide, 31, and gunshot-wounds, 21. These two last causes for death have greatly increased over any former year. The latter may be readily accounted for, in consequence of the war and the increased use of firearms. Of the fifty-two deaths from these causes, there were only five females.

A very large proportion of the deaths under this class were among persons born in foreign countries, viz., 124 equal to 26.49 per cent. whilst the deaths from the different wards give the heaviest number in those, where there are located extensive manufactories with their numerous workmen.

The deaths from intemperance were 29—15 females and 14 males.

Table V., Class 13. UNKNOWN, makes up 104 deaths. As usual, under this obscure title, many of the deaths occurring in this and even in other cities, are recorded. With a careful attention to diagnosis, the number could, no doubt, be materially lessened. In the Boston mortality report for 1859, complaint is made that in 69 instances no attempt was made to specify the disease. Dr. Snow, of Providence, R. I., in his report for that city for 1860, makes the folllowing terse remarks in relation to the proper certification of deaths. "A correct public sentiment upon this subject should demand a more strict and accurate inquiry into the cause of every death. As it is," he says, "it is better for statistical purposes that deaths should be reported as from unknown causes, than that they should be incorrectly reported." This hint may probably stir up some of the profession to do better in future.

Table V., Class 14. STILL-BORN.—The still-births, or, the deaths in intra-uterine life, or those which took place during the process of labour, have numbered 630. Of these, 364 were males, and 266 females. The former outnumbering the latter by 98, or 37 per cent.

This mortality was less than the previous year by 11 per cent.

The record does not make any distinction between premature births and still-born, nor does the registration law require it.

An examination into the causes which are so productive of the death of infants before birth, and just at the moment when they are to be ushered into a new existence, would form an interesting and important, yet in some degree at least it might be considered a revolting chapter of vital statistics.

In connection with the subject of infant mortality in this city, I would express the hope that the College might find in this question also a new incentive for scientific investigation.

TABLE IV.—*Interments in the City of Philadelphia from December 29, 1860, to December 28, 1861.*

Division 1. *Mortality classified according to Sex and Age.*

DISEASES.	SEX.				AGES.														ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	110 to 120.			
Abscess	26	21	7	7	5	3	1	2	1	2	7	10	3	4	6	1	2	..	..	..	33	14	47
Abortion	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
Adynamia or debility	1	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1
Albuminuria	16	4	2	1	..	..	2	..	1	..	4	5	..	7	1	..	..	..	..	..	17	3	20
Anæmia	10	8	7	6	7	1	1	2	1	1	1	2	1	..	..	1	..	..	..	..	5	13	18
Aneurism	6	3	1	1	2	..	..	..	..	..	..	2	..	2	2	1	..	..	..	..	7	2	9
Anthrax or carbuncle	2	4	..	2	1	..	..	..	..	1	1	1	..	..	1	1	..	..	..	..	4	2	6
Apoplexy	83	79	6	5	5	..	1	2	..	3	8	11	23	28	36	33	12	..	..	..	151	11	162
Aphthæ	2	4	2	4	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	6
Asthma	5	12	..	3	1	1	1	..	..	..	1	..	4	3	3	2	1	..	..	..	14	3	17
Asphyxia	30	17	29	15	41	3	..	..	..	..	1	..	..	..	..	1	1	..	..	..	3	44	47
Burns and scalds	27	54	24	37	6	13	24	11	3	4	11	4	1	..	2	..	1	1	..	..	20	61	81
Cancer	21	34	1	..	..	1	..	..	..	..	3	9	9	13	12	7	1	..	..	..	54	1	55
" of the breast	..	9	..	..	..	..	..	..	..	..	..	1	3	3	..	..	1	1	..	..	9	..	9
" " bladder	1	1	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	2	..	2
" " eye	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1
" " face	3	1	..	..	..	..	..	..	..	..	..	..	1	1	1	..	1	..	..	..	4	..	4
" " heart	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
" " liver	4	5	..	..	..	..	..	..	..	..	1	1	1	3	2	1	..	..	..	..	9	..	9
" " lungs	..	2	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	2	..	2
" " nose	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1
" " rectum	3	1	..	..	..	..	..	..	..	..	1	..	2	..	1	..	..	..	..	..	4	..	4
" " spleen	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1
" " stomach	27	37	3	2	..	2	3	..	..	..	1	11	13	12	14	8	..	..	..	..	59	5	64
" " skin	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
" " throat	1	2	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	3	..	3
" " testicles	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
" " uterus	..	30	..	..	..	..	..	..	..	..	2	6	6	8	7	..	..	..	..	..	30	..	30
" " œsophagus	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
Casualties	103	19	40	11	5	8	12	11	9	6	24	18	11	8	6	3	1	..	..	..	71	51	122
Caries	1	1	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	1	2
" of the spine	2	1	2	1	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	3	3
Congestion	2	1	..	..	..	..	..	..	..	..	1	..	..	2	..	..	..	..	..	..	3	..	3
" of the brain	161	114	93	79	63	30	41	22	7	9	20	23	18	16	13	9	3	..	1	..	103	172	275
" " bowels	2	3	2	..	..	..	2	..	..	..	1	1	..	..	..	..	1	..	..	..	3	2	5
" " liver	7	5	5	2	6	..	1	..	..	..	..	3	..	1	..	1	..	..	..	..	5	7	12
" " lungs	59	51	38	31	33	12	13	7	1	3	4	7	2	7	7	8	6	..	..	..	41	69	110

TABLE IV.—*Interments in the City of Philadelphia during* 1861—Continued.

Division 1. *Mortality classified according to Sex and Age.*

DISEASES.	SEX.				AGES.														ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	110 to 120.			
Convulsions	336	300	325	281	345	111	105	38	3	4	7	8	7	3	3	1	1	..	..	..	30	606	636
" puerperal	..	25	..	3	..	..	..	..	..	3	14	7	1	..	..	..	..	..	..	..	22	3	25
Consumption of lungs	910	907	136	166	54	34	37	26	24	127	475	423	277	169	115	44	12	..	..	..	1515	302	1817
" stomach and bowels	7	8	4	2	2	1	1	2	..	..	2	2	1	2	2	..	..	..	..	..	9	6	15
Compression of the brain	3	1	1	1	2	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	2	2	4
Concussion of the brain	7	4	2	3	2	2	1	..	..	..	1	1	..	..	1	2	1	..	..	..	6	5	11
" " spine	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Collapsus	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
" of the lungs	1	1	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Coup de soleil	2	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	1	1	2
Chicken-pox	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Chlorosis	..	2	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	2	..	2
Constipation	3	1	1	..	..	..	..	1	..	..	..	1	1	..	1	..	..	..	..	..	3	1	4
Cirrhosis	14	7	..	..	..	..	..	..	..	..	1	3	4	4	7	2	..	..	..	..	21	..	21
Coxalgia	2	2	2	2	..	..	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..	4	4
Croup	154	150	153	150	37	51	159	50	5	1	..	1	..	..	..	..	..	..	..	..	1	303	304
Cyanosis	38	26	38	25	62	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	63	64
Colic	3	3	2	2	3	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	2	4	6
Coma	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Cramps	7	9	5	7	10	..	2	..	..	..	1	1	..	..	1	1	..	..	..	..	4	12	16
Cholera	2	5	..	2	..	1	..	..	1	..	..	3	..	1	..	1	..	..	..	..	5	2	7
" infantum	316	302	316	302	400	172	40	6	..	..	..	..	..	..	..	..	..	..	..	..	..	618	618
" morbus	11	7	7	4	8	1	1	1	..	..	..	2	1	..	1	3	..	..	..	..	7	11	18
" asphyxia	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1
Diabetes	11	1	2	..	1	..	1	..	..	..	1	2	1	3	2	1	..	..	..	..	10	2	12
Diphtheria	254	248	248	241	56	81	212	112	21	7	5	4	1	1	1	1	..	..	..	..	13	489	502
Diuresis	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
Debility	442	384	244	181	341	29	33	15	4	3	30	44	47	59	63	94	46	14	4	..	401	425	826
Dysentery	82	75	51	40	39	27	15	9	..	1	11	11	9	11	9	12	2	1	..	..	66	91	157
Drowned	93	6	32	3	..	..	5	15	9	6	31	14	9	5	3	2	..	..	..	..	64	35	99
Diarrhœa	103	80	66	48	70	27	13	2	..	2	6	11	7	11	15	11	8	..	..	..	69	114	183
Dyspepsia	3	5	..	1	1	..	..	..	..	..	..	1	3	..	..	2	1	..	..	..	7	1	8
Debauch	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
Dropsy	143	141	59	43	10	4	46	27	8	7	11	30	27	46	27	31	8	1	1	..	182	102	284
" abdominal	4	4	2	..	..	1	..	1	..	..	..	1	..	2	2	1	..	..	..	..	6	2	8
" of the brain	134	88	132	86	94	66	43	15	..	..	..	1	..	1	1	1	..	..	..	..	4	218	222
" " chest	34	29	25	12	5	3	13	12	2	2	1	1	1	7	6	10	..	..	..	..	26	37	63

TABLE IV.—*Interments in the City of Philadelphia during* 1861—Continued.

Division 1. *Mortality classified according to Sex and Age.*

DISEASES.	SEX.				AGES.														ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	110 to 120.			
Dropsy of the heart	14	17	6	7	2	..	5	5	1	..	1	3	1	4	2	5	2	..	..	..	18	13	31
" " ovaries	..	2	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	2	..	2
Disease of the brain	67	45	47	34	34	18	15	11	1	2	4	5	10	6	3	2	1	..	..	..	31	81	112
" " bladder	2	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	2	..	2
" " heart	136	129	40	28	12	9	11	10	10	16	19	32	26	39	34	38	8	1	..	..	197	68	265
" " liver	19	26	6	3	6	..	1	2	..	..	4	4	10	7	5	6	..	..	..	..	36	9	45
" " lungs	9	14	5	6	7	2	2	..	..	..	5	1	2	..	1	2	1	..	..	..	12	11	23
" " kidneys	22	7	4	2	..	..	2	2	..	2	5	2	6	3	3	3	..	1	..	..	23	6	29
" " ovaries	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
" " pelvis	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
" " prostate gland	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2	..	2
" " spine	5	6	4	4	..	2	2	1	1	2	..	1	..	2	..	..	..	..	..	..	3	8	11
" " stomach and bowels	12	5	4	2	4	..	1	..	..	1	2	2	1	2	2	2	..	..	..	..	11	6	17
" " throat	1	1	1	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
" " uterus	..	3	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	3	..	3
Effusion on brain	46	27	42	24	24	18	15	6	2	1	..	3	2	..	1	..	1	..	..	..	7	66	73
" chest	1	3	1	2	1	1	..	..	..	1	..	..	..	..	1	..	..	..	..	..	1	3	4
" spinal marrow	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Erysipelas	39	25	19	17	27	1	3	2	2	1	2	3	8	4	4	4	3	..	..	..	28	36	64
Epilepsy	10	12	3	4	2	..	2	..	..	3	3	3	5	2	2	..	..	..	..	..	15	7	22
Eczema	1	1	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Enlargement of the heart	5	7	1	2	..	..	1	..	1	1	1	4	1	..	2	1	..	..	..	..	9	3	12
" " liver	..	2	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Emphysema of lungs	..	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Exposure and debauch	2	1	..	1	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	2	1	3
Fracture	3	1	2	1	..	1	..	1	1	..	..	..	..	..	1	..	..	..	..	..	1	3	4
" of the arm	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
" " leg	2	1	2	..	..	..	..	..	1	1	..	..	..	..	..	1	..	..	..	..	1	2	3
" " liver	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1
" " skull	6	2	..	..	..	..	..	..	..	..	2	2	1	2	1	..	..	..	..	..	8	..	8
" " spine	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
" " thigh	1	3	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	2	..	..	4	..	4
Fatty degeneration of the liver	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1
Fungus medullaris	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Fever	5	1	2	1	..	1	..	1	1	..	1	..	..	..	..	2	..	..	..	..	3	3	6
" of the brain	4	3	4	2	..	2	1	1	..	2	1	..	..	..	..	..	..	..	..	..	1	6	7
" bilious	3	4	1	..	..	..	1	..	..	..	2	..	2	..	..	2	..	..	..	..	6	1	7

TABLE IV.—*Interments in the City of Philadelphia during* 1861—Continued.

Division 1. *Mortality classified according to Sex and Age.*

DISEASES.	SEX.				AGES.															ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	110 to 120.			
Fever, camp	3	..	2	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	1	2	3
" continued	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
" congestive	2	4	1	2	..	..	..	2	1	..	..	..	1	1	..	1	..	..	..	..	3	3	6
" enteric	9	..	4	..	..	..	..	1	3	..	5	..	..	..	..	..	..	..	..	..	5	4	9
" hectic	2	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1	2
" intermittent	1	2	1	1	..	..	2	..	..	..	..	..	..	..	..	1	..	..	..	..	1	2	3
" nervous	2	3	2	1	..	..	1	1	..	1	..	..	2	..	..	..	..	..	..	..	2	3	5
" puerperal	..	15	..	..	..	..	..	..	..	..	7	7	1	..	..	..	..	..	..	..	15	..	15
" remittent	12	10	7	4	1	..	5	2	2	1	2	3	1	..	3	1	1	..	..	..	11	11	22
" scarlet	582	608	580	601	86	192	615	263	21	4	2	3	..	..	1	..	..	..	..	..	6	1184	1190
" typhoid	148	133	46	52	1	4	23	25	8	37	88	30	36	14	10	5	..	..	..	..	183	98	281
" typhus	17	28	5	7	..	..	2	5	2	3	8	8	5	5	3	3	1	..	..	..	33	12	45
" rheumatic	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
Gangrene	13	33	1	11	2	6	3	4	..	..	7	5	2	2	5	6	3	1	..	..	31	15	46
Gout	4	1	..	..	..	..	..	..	..	..	..	1	..	1	1	2	..	..	..	..	5	..	5
Hooping-cough	45	48	45	48	51	21	17	1	..	..	..	..	..	..	..	..	..	..	..	..	..	93	93
Hypercatharsis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1
Hydrophobia	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
Hernia	7	7	..	1	1	..	..	..	..	..	1	2	1	1	4	4	..	..	..	..	13	1	14
Hemorrhage	38	34	17	16	15	..	6	5	2	5	12	9	5	6	3	1	3	..	..	..	39	33	72
" of the lungs	15	10	1	2	1	..	1	1	..	..	5	5	8	1	2	..	1	..	..	..	41	1	42
" stomach and bowels	9	3	1	..	1	..	..	..	..	..	4	2	3	..	..	2	..	..	..	..	22	3	25
" uterus	..	13	..	1	..	..	..	..	..	1	1	9	2	..	..	..	..	..	..	..	12	1	13
Inflammation	..	2	..	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	1	1	2
" of the brain	184	121	158	108	84	64	75	30	9	4	11	12	5	8	3	..	..	..	..	..	39	206	305
" " bronchi	71	67	42	36	42	17	13	2	4	..	8	7	9	10	11	8	4	..	..	..	60	78	138
" " bladder	13	15	2	..	1	1	..	..	..	..	7	6	2	1	4	4	2	..	..	..	26	2	28
" " chest	3	1	3	1	3	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	4	4
" " foot and leg	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
" " heart	11	12	6	3	..	..	3	2	2	2	..	2	6	1	2	3	..	..	..	..	14	9	23
" " kidneys	5	3	2	1	..	..	1	1	1	..	..	..	..	1	1	2	..	..	..	..	5	3	8
" " lungs	367	311	262	222	236	98	93	36	7	11	35	31	30	35	30	26	8	2	..	..	197	484	681
" " liver	20	20	4	2	3	1	..	1	1	..	1	7	7	6	10	2	1	..	..	..	34	6	40
" " larynx	15	9	11	8	6	4	8	3	1	..	..	1	..	..	..	1	..	..	..	..	2	22	24
" " nose	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
" " ovaries	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
" " pleura	14	7	4	3	2	1	2	2	..	..	5	1	2	2	2	1	..	1	..	..	14	7	21

TABLE IV.—*Interments in the City of Philadelphia during* 1861—Continued.

Division 1. *Mortality classified according to Sex and Age.*

DISEASES.	SEX.				AGES.														ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	110 to 120.			
Inflammation of peritoneum	24	43	9	8	5	1	..	6	2	3	17	11	9	4	7	2	..	..	..	..	50	17	67
" stomach & bowels	107	131	63	67	53	23	26	15	6	7	21	27	17	13	19	9	2	..	..	..	108	130	238
" spine	5	3	4	3	1	1	2	3	..	..	..	..	..	1	..	..	..	..	..	..	1	7	8
" throat	1	2	1	2	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3
" tonsils	1	2	1	2	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3
" prostate gland	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1
" uterus	..	4	..	..	..	..	..	..	..	..	3	1	..	..	..	..	..	..	..	..	4	..	4
Inanition	79	45	66	38	89	7	4	2	1	1	3	4	2	2	6	2	1	..	..	..	20	104	124
Intemperance and exposure	14	15	..	..	..	..	..	..	..	..	5	15	4	4	1	..	..	..	..	..	29	..	29
Intussusception	4	4	2	2	1	..	2	1	..	..	1	..	1	..	1	1	..	..	..	..	4	4	8
Ileus	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	2	..	2
Jaundice	13	11	5	3	6	..	2	..	..	..	2	2	..	4	3	4	1	..	..	..	16	8	24
Laceration of the brain	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Malformation	14	3	14	3	17	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17	17
Mania	3	8	..	..	..	..	..	..	..	..	3	5	2	..	1	..	..	..	..	..	11	..	11
Mania a potu	30	2	..	..	..	..	..	..	..	..	6	12	9	3	2	..	..	..	..	..	32	..	32
Marasmus	285	248	267	228	319	101	53	18	3	1	3	4	4	6	9	8	4	..	..	..	38	495	533
Measles	36	38	34	37	15	22	29	4	1	..	1	1	1	..	..	..	..	..	..	..	3	71	74
Neglect	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Neuralgia	1	3	..	..	..	..	..	..	..	..	1	..	..	1	1	1	..	..	..	..	4	..	4
Nervous prostration	1	1	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	2	..	2
Old age	66	137	..	..	..	..	..	..	..	..	..	..	..	1	11	57	95	34	4	1	203	..	203
Œdema of the glottis	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
" " lungs	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Obstruction of the bowels	2	5	1	..	1	..	..	..	..	..	..	1	..	2	2	1	..	..	..	..	6	1	7
Ossification of the heart	3	1	..	..	..	..	..	..	..	..	..	..	..	..	1	3	..	..	..	..	4	..	4
" " arteries	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
Palsy	75	84	6	1	..	2	3	..	..	2	2	4	16	21	39	50	16	2	2	..	152	7	159
Poisoning	3	4	1	1	..	1	1	..	..	..	..	2	..	1	..	2	..	..	..	..	5	2	7
Pyohæmia	12	8	3	4	2	1	..	1	2	1	5	2	3	1	1	1	..	..	..	..	13	7	20
Purpura	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
Pemphigus infantilis	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Rheumatism	10	13	6	1	..	..	..	4	2	1	2	2	6	1	2	3	..	..	..	..	16	7	23
Rupture of the heart	1	1	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	2	..	2
" " uterus	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
Rupia	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Suicide	26	5	..	..	..	..	..	..	..	..	5	9	10	2	3	2	..	..	..	..	31	..	31

TABLE IV.—*Interments in the City of Philadelphia during* 1861—Continued.

Division 1. *Mortality classified according to Sex and Age.*

DISEASES.	SEX.				AGES.															ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	110 to 120.			
Scrofula	46	30	39	26	22	15	14	7	4	3	3	4	4	..	..	..	..	..	..	..	11	65	76
Smallpox	379	379	282	333	159	105	200	108	23	20	65	45	23	8	1	1	..	..	..	..	143	615	758
Softening of the brain	19	10	1	3	1	..	1	2	..	..	3	2	3	4	8	5	..	..	..	..	25	4	29
" " stomach	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1
" " lung	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
Sore throat	4	4	4	3	..	1	2	3	..	1	..	..	..	..	1	..	..	..	..	..	1	7	8
Stillborn	364	266	364	266	630	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	630	630
Stone	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	2	..	2
Syphilis	2	7	1	4	4	..	..	..	..	1	1	2	1	..	..	..	..	..	..	..	4	5	9
Suspension	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Strangulation	1	1	1	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Stricture of the œsophagus	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	2	..	2
Suffocation	2	3	2	3	1	..	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	5	5
Syncope	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Tetanus	18	8	10	6	9	2	1	1	1	2	1	5	..	2	2	..	..	..	..	..	10	16	26
Teething	13	17	13	17	17	12	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	30	30
Tabes mesenterica	22	13	20	12	10	13	7	2	..	..	1	..	1	..	1	..	..	..	..	..	3	32	35
Tumours	7	16	3	2	1	1	3	..	..	..	1	2	5	6	2	2	..	..	..	..	18	5	23
Ulceration	1	1	..	1	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1	2
" of stomach and bowels	10	8	2	..	..	..	1	..	..	1	5	1	4	1	3	1	1	..	..	..	16	2	18
" throat	5	6	2	5	2	..	3	2	..	..	..	1	..	1	2	..	..	..	..	..	4	7	11
Uræmia	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	2	..	2
Unknown	51	53	27	29	41	6	6	1	2	..	11	7	15	4	5	6	..	..	..	..	48	56	104
Violence	11	2	1	2	1	..	..	..	1	1	5	3	1	1	..	..	..	..	..	..	10	3	13
Wounds	4	..	1	..	..	..	..	..	..	1	2	..	1	..	..	..	..	..	..	..	3	1	4
" cannon-ball	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
" gunshot	20	..	7	..	..	..	..	..	..	7	8	2	3	..	..	..	..	..	..	..	13	7	20
Worms	2	1	2	1	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3
Want and exposure	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Total	7582	886	4800	4217	3799	1473	2134	1018	240	353	1149	1097	857	712	677	606	278	62	12	1	5451	9017	14468

TABLE IV.—*Interments in the City of Philadelphia during* 1861—Continued.

Division 2. *Mortality classified according to Colour, Nativity, and Wards.*

DISEASES.	Almshouse.	People of colour.	Country.	Nativity.			Wards.																							Unknown Wards.
				United States.	Foreign.	Unknown	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Abscess	1	2	3	38	6	3	4	3	2	2	1	1	4	..	2	1	1	1	3	1	1	1	..	3	..	4	3	..	3	2	1
Abortion	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Adynamia or debility	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Albuminuria	..	1	1	14	5	1	..	2	..	1	..	2	1	3	1	2	..	..	1	1	1	..	..	1	1	2	..	..	..	..	..
Anæmia	..	..	..	16	2	..	..	2	..	2	1	..	2	..	..	..	..	1	..	1	1	..	..	3	1	1	1	..	1	1	..
Aneurism	1	1	1	5	3	1	..	..	..	..	1	1	..	..	1	..	1	..	..	..	..	..	..	..	1	..	..	..	1	2	..
Anthrax or carbuncle	1	..	..	4	1	1	1	1	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	..
Apoplexy	10	6	6	86	59	17	9	9	8	9	6	4	8	7	5	9	5	5	2	4	5	3	3	6	5	10	2	3	3	20	6
Aphthæ	..	..	..	6	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	..	..	..	2	..	..
Asthma	3	1	..	7	6	4	1	..	..	2	..	1	2	..	..	..	1	1	..	..	..	1	1	..	2	..	..	..	..	4	1
Asphyxia	1	..	..	47	..	..	6	5	1	2	3	1	4	2	1	1	1	..	..	3	2	1	1	2	2	2	1	1	2	3	..
Burns and scalds	..	1	3	70	10	1	2	4	3	10	2	3	4	7	1	..	1	2	4	1	4	4	3	2	8	2	1	3	4	3	..
Cancer	1	..	2	32	21	2	3	2	..	3	1	1	3	3	1	1	4	2	3	2	2	4	3	3	1	1	1	1	2	3	3
" of the breast	1	..	..	4	4	1	1	..	..	..	..	..	..	..	..	1	1	1	..	..	..	1	..	..	1	..	..	..	..	2	1	1
" " bladder	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" " eye	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" " face	1	..	..	2	1	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..
" " heart	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
" " liver	..	..	..	6	3	..	..	..	1	1	1	..	2	2	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..
" " lungs	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
" " nose	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
" " rectum	..	..	..	1	3	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
" " spleen	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
" " stomach	4	2	1	32	27	5	5	2	1	3	5	4	5	5	1	1	1	..	2	3	3	1	3	1	3	4	..	1	3	4	2
" " skin	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" " throat	.	..	..	..	3	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..
" " testicles	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" " uterus	1	2	..	17	12	1	2	1	2	1	1	1	3	1	..	1	1	2	2	2	2	..	1	..	1	3	..	..	1	2	..
" " œsophagus	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Casualties	1	2	4	70	46	6	8	11	2	3	3	3	8	3	1	2	4	4	1	4	9	2	4	1	11	13	4	2	6	5	4
Caries	..	..	..	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
" of the spine	..	..	..	3	..	..	..	..	..	1	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Congestion	..	..	..	3	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..
" of the brain	12	18	4	225	36	14	28	16	8	19	12	6	10	12	8	6	6	2	9	8	9	7	18	8	23	13	5	1	17	18	2
" " bowels	..	..	..	3	2	..	2	..	..	..	1	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..
" " liver	..	..	..	10	2	..	..	2	..	..	..	..	1	..	..	1	1	..	..	..	1	..	..	2	2	1	..	..	1	..	..
" " lungs	6	2	3	84	21	5	3	7	2	8	6	2	5	2	1	2	7	3	..	2	3	..	8	4	8	15	1	..	3	11	4

TABLE IV.—*Interments in the City of Philadelphia during* 1861—Continued.

Division 2. *Mortality classified according to Colour, Nativity, and Wards.*

DISEASES.	Almshouse.	People of colour.	Country.	Nativity.			Wards.																							Unknown Wards.
				United States.	Foreign.	Unknown.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Convulsions	11	27	6	600	23	13	32	33	16	32	20	15	25	14	11	13	24	21	17	13	44	31	47	26	68	47	11	11	19	29	11
" puerperal	2	2	..	15	8	2	1	2	1	..	..	..	3	..	1	2	..	..	1	1	2	..	..	2	3	1	..	2	..	3	..
Consumption of lungs	154	139	28	1008	613	196	95	101	51	104	71	29	124	78	46	52	38	41	54	59	83	48	89	56	125	84	28	33	38	224	38
" stomach & bowels	..	1	..	8	6	1	..	..	..	2	..	..	..	..	1	..	..	..	..	..	1	3	1	1	2	..	..	1	1	1	1
Compression of the brain	..	..	..	2	2	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	1	..	..
Concussion of the brain	..	1	..	9	2	..	3	1	..	1	..	2	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	..	..
" " spine	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Collapsus	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
" of the lungs	1	..	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Coup de soleil	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Chicken-pox	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Chlorosis	..	..	..	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Constipation	..	..	..	2	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	..	..	..
Cirrhosis	4	..	..	8	8	5	1	..	..	4	..	1	..	1	2	1	..	..	1	1	..	..	..	..	1	..	..	2	5	1	
Coxalgia	..	..	..	3	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	1	..	1	..	
Croup	..	8	5	298	3	3	15	8	11	16	10	4	12	6	4	8	8	4	8	13	25	18	18	9	27	14	19	7	19	11	5
Cyanosis	2	2	1	62	1	1	10	2	2	..	3	..	3	4	2	3	..	..	1	5	3	..	2	2	2	2	1	3	6	5	2
Colic	..	..	1	5	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	1	..	..	..	1	..	1
Coma	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cramps	..	..	..	13	3	..	..	1	..	1	..	..	..	..	1	..	1	2	1	2	1	..	1	..	4	..	..	..	..	..	1
Cholera	..	..	1	4	3	..	1	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..
" infantum	2	29	10	616	1	1	38	33	20	27	20	12	41	21	9	19	20	25	13	12	38	18	40	26	53	39	17	17	12	23	15
" morbus	..	..	1	12	5	1	..	..	..	..	2	1	2	..	..	..	1	..	..	1	3	1	2	..	3	1	..	..	..	..	..
" asphyxia	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..
Diabetes	3	..	..	5	5	2	..	1	1	..	..	..	1	1	..	2	..	..	1	..	..	..	1	..	..	..	..	..	1	3	..
Diphtheria	4	17	11	479	12	11	46	22	12	12	16	7	19	5	10	23	24	16	27	25	20	19	44	14	29	45	5	5	17	18	11
Diuresis	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Debility	41	63	5	575	175	76	52	40	21	39	36	25	35	26	26	27	21	14	19	27	47	22	51	36	57	40	19	15	9	70	47
Dysentery	12	7	9	110	30	17	7	6	4	5	5	3	5	8	5	3	7	2	3	4	5	5	10	9	19	2	3	3	4	17	4
Drowned	..	1	5	45	30	24	6	3	3	6	1	4	2	6	2	4	3	1	1	..	4	1	2	3	6	..	5	1	1	2	27
Diarrhœa	21	8	6	132	33	18	10	6	6	8	6	3	10	3	1	6	7	3	3	1	9	6	10	17	16	6	3	4	3	25	5
Dyspepsia	..	..	..	6	2	..	1	1	..	..	..	..	..	3	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..
Debauch	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Dropsy	7	25	10	178	92	14	24	13	4	13	12	2	14	9	6	7	9	7	10	5	12	13	13	8	22	18	10	3	11	19	10
" abdominal	2	1	..	3	3	2	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	3	..	1	..	..	..	..	2	..
" of the brain	1	9	5	213	3	6	10	10	12	9	7	7	3	2	7	7	9	9	9	4	16	7	11	11	20	14	3	7	5	13	5
" " chest	..	..	3	51	10	2	2	7	3	..	2	3	1	4	..	2	3	1	4	3	4	6	1	..	1	4	..	1	4	4	..

TABLE IV.—*Interments in the City of Philadelphia during* 1861—Continued.

Division 2. *Mortality classified according to Colour, Nativity, and Wards.*

DISEASES.	ALMSHOUSE.	PEOPLE OF COLOUR.	COUNTRY.	NATIVITY.			WARDS.																						UNKNOWN WARDS.
				United States.	Foreign.	Unknown.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Dropsy of the heart	1	2	..	19	10	2	..	1	..	2	1	..	1	2	..	1	..	2	3	1	1	..	2	..	4	1	1	1	3	3	1
" " ovaries	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Disease of the brain	1	1	3	99	9	4	5	9	2	2	6	2	4	3	3	6	3	2	7	4	17	6	1	3	3	14	..	..	..	5	2
" " bladder	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
" " heart	12	14	11	169	78	18	12	11	5	11	5	5	19	20	12	12	10	4	10	8	12	7	6	8	13	14	6	7	8	20	9
" " liver	..	..	1	32	13	..	4	3	..	1	1	..	1	2	2	2	..	..	1	1	3	3	3	1	5	5	3	..	2	1	..
" " lungs	..	1	2	18	5	..	4	1	..	1	1	..	1	1	..	..	..	1	2	1	3	..	1	..	1	2	1	..	..	..	..
" " kidneys	3	2	..	16	8	5	..	3	..	2	..	..	3	1	2	1	..	1	..	2	..	2	1	1	..	1	1	1	1	6	..
" " ovaries	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
" " pelvis	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" " prostate gland	..	..	..	1	1	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" " spine	1	2	..	8	2	1	..	2	..	1	..	..	2	..	..	..	..	..	..	..	1	1	..	1	..	..	..	1	..	2	..
" " stomach & bowels	..	..	1	14	3	..	..	..	..	2	2	..	..	1	1	..	..	..	1	..	2	1	..	..	..	1	..	..	3	1	1
" " throat	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..
" " uterus	..	..	..	2	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Effusion on brain	5	5	3	67	1	5	5	1	4	2	2	3	8	1	6	5	..	4	1	6	3	1	1	2	1	5	2	1	..	4	2
" chest	..	..	..	3	1	..	..	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..
" spinal marrow	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	4	3	..	48	11	5	6	5	1	2	2	..	3	2	1	3	..	2	..	2	2	2	5	2	8	2	1	2	4	5	2
Epilepsy	5	1	..	10	7	5	2	..	1	1	..	..	1	1	..	..	..	..	..	..	3	2	..	1	..	..	1	..	1	8	..
Eczema	..	..	..	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Enlargement of the heart	..	1	..	7	4	1	..	..	..	1	1	..	1	..	1	1	..	..	1	..	1	..	..	..	..	..	1	1	2	..	..
" " liver	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..
Emphysema of lungs	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Exposure and debauch	2	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..
Fracture	..	..	..	3	1	..	1	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	1	..
" of the arm	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
" " leg	..	1	..	2	1	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..
" " liver	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
" " skull	1	..	..	4	3	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..	2	..	..	..	1	2	..	..	..	1	..
" " spine	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
" " thigh	..	..	..	2	1	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..
Fatty degeneration of the liver	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fungus medullaris	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Fever	..	..	..	3	3	..	1	..	..	..	..	..	1	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..
" of the brain	..	..	1	7	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1	..	..	1	1	..	1	..	..	..	..
" bilious	..	..	..	4	3	..	2	..	..	..	..	..	..	..	..	..	..	..	2	..	..	1	1	..	..	..	..	..	1	..	..

TABLE IV.—*Interments in the City of Philadelphia during* 1861—Continued.

Division 2. *Mortality classified according to Colour, Nativity, and Wards.*

DISEASES.	ALMSHOUSE.	PEOPLE OF COLOUR.	COUNTRY.	NATIVITY.			WARDS.																				UNKNOWN WARDS.
				United States.	Foreign.	Unknown	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		24	
Fever, camp	..	..	1	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	.	..	..	..	..	..	..
" continued	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
" congestive	..	2	..	5	1	..	2	..	..	..	..	..	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..
" enteric	..	..	..	8	1	..	..	..	1	..	..	1	1	1	..	..	..	..	..	..	1	..	..	..	1	..	..	1	1	1
" hectic	..	..	..	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
" intermittent	..	..	..	2	..	1	..	..	..	..	..	..	..	..	..	..	2	..	..	..	1	..	..	..	..	..	..	..	..	..
" nervous	..	..	..	4	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	2	..	..	..	..	..	1	..
" puerperal	..	..	1	7	5	3	2	1	..	..	..	1	1	..	..	..	..	..	..	1	..	2	..	1	3	..	1	..	..	1
" remittent	..	3	3	17	3	2	4	2	..	..	1	1	..	..	..	1	..	..	..	..	..	1	..	..	..	2	1	..	5	1
" scarlet	..	7	22	1166	15	9	59	43	15	30	15	19	60	13	23	25	49	48	36	36	81	75	99	91	96	103	37	13	43	36	23
" typhoid	5	12	12	198	69	14	14	18	4	12	5	3	17	9	10	10	6	5	11	13	9	10	19	12	23	13	8	7	11	13	7
" typhus	4	..	2	26	13	6	1	1	2	2	3	2	..	..	..	1	..	4	1	..	3	2	..	..	4	3	2	..	2	9	1
" rheumatic	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gangrene	5	..	1	32	9	5	4	..	1	4	..	1	..	2	..	1	1	1	..	..	3	5	2	2	4	5	..	1	1	7	..
Gout	..	..	..	5	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	2	..	1	..	..	..	..	..	..	..	..	..
Hooping-cough	..	4	2	92	..	1	7	6	1	8	2	..	6	..	..	1	5	2	2	2	8	4	7	7	12	4	1	..	3	3	..
Hypercatharsis	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hydrophobia	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Hernia	..	..	1	5	8	1	..	..	..	1	..	1	3	..	1	..	..	1	..	1	..	1	..	..	1	2	..	1	..	..	..
Hemorrhage	1	4	1	48	21	3	2	5	1	4	6	1	5	6	1	1	6	1	1	3	4	4	2	7	2	1	1	2	4	..
" of the lungs	1	2	3	18	4	3	..	1	1	..	1	1	2	1	1	1	..	..	..	1	2	..	..	2	..	2	..	..	2	1	3
" stomach & bowels	..	..	..	10	2	..	..	1	..	..	1	1	..	2	..	..	..	..	2	..	..	..	..	1	..	1	..	..	1	1	1
" uterus	..	1	..	6	7	..	1	..	..	..	1	1	1	1	..	..	1	..	..	1	1	..	..	..	..	2	2	..	1	..	..
Inflammation	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
" of the brain	1	8	4	278	22	5	30	16	10	16	5	6	12	8	8	11	14	7	5	12	17	12	19	17	26	13	5	6	3	13	10
" " bronchi	6	17	2	111	18	9	13	6	7	14	6	2	9	5	2	4	2	1	1	8	13	4	7	3	3	7	2	3	2	7	5
" " bladder	3	4	..	12	13	3	2	1	3	1	4	..	2	..	..	1	1	..	2	..	1	1	..	..	2	1	..	1	1	4	..
" " chest	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	2	..	..	..	..	..	..	..	..
" " foot and leg	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" " heart	1	2	..	13	9	1	1	2	..	2	2	..	1	1	1	1	..	1	..	1	1	..	..	..	3	3	..	2	..	1	..
" " kidneys	..	..	..	6	2	..	1	1	..	..	1	..	1	..	..	..	..	..	..	..	1	1	..	..	..	..	..	1	..	1	..
" " lungs	15	53	21	567	85	29	45	25	22	37	22	18	43	13	24	16	15	17	18	16	35	21	25	23	52	35	20	14	41	47	16
" " liver	1	1	..	19	20	1	2	2	..	2	1	1	4	5	1	3	..	1	1	2	1	2	1	1	1	1	3	2	2	1	..
" " larynx	..	1	1	23	1	..	2	2	..	..	..	1	3	2	..	2	1	..	2	..	2	1	1	1	..	2	..	1	..	..	..
" " nose	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" " ovaries	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
" " pleura	4	1	..	7	8	6	1	..	2	1	1	..	3	1	2	..	..	1	..	..	..	..	1	..	..	3	..	..	..	5	..

TABLE IV.—*Interments in the City of Philadelphia during* 1861—Continued.

Division 2. *Mortality classified according to Colour, Nativity, and Wards.*

DISEASES.	ALMSHOUSE.	PEOPLE OF COLOUR.	COUNTRY.	NATIVITY.			WARDS.																						UNKNOWN WARDS.
				United States.	Foreign.	Unknown.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Inflammation of peritoneum	5	2	3	36	25	6	4	5	3	3	3	..	1	..	6	1	..	3	1	2	2	2	2	4	7	3	2	..	1	9	1
" stomach & bowels	9	7	5	168	58	12	18	15	7	11	5	5	11	2	7	7	11	6	4	8	13	8	18	8	19	5	15	4	7	15	4
" spine	..	1	..	6	2	..	..	2	..	..	..	1	..	1	..	1	..	1	1	..	..	..	..	..	..	..	..	..	1	..	..
" throat	..	..	..	3	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..
" tonsils	..	..	..	3	..	..	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
" prostate gland	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" uterus	..	..	1	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	1	..	..	..	..
Inanition	13	3	3	111	7	6	9	10	3	9	2	2	2	1	1	11	1	2	3	3	2	5	1	4	13	7	3	5	..	18	4
Intemperance and exposure	..	1	..	3	10	16	2	1	..	4	1	..	..	..	..	..	1	..	..	..	2	..	1	..	1	..	..	1	..	..	15
Intussusception	..	..	..	7	1	..	..	..	..	..	..	..	1	..	1	..	1	..	..	..	..	1	..	..	1	..	1	1	..	1	..
Ileus	..	..	..	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Jaundice	2	1	2	16	5	3	..	1	1	..	..	1	3	2	1	..	1	1	..	..	..	3	..	1	1	..	..	..	3	3	..
Laceration of the brain	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Malformation	..	..	..	17	..	..	4	..	..	1	..	..	1	..	1	1	..	1	2	..	..	..	1	2	1	1	..	..	1	..	..
Mania	1	..	..	6	2	3	..	..	..	..	..	..	1	..	..	..	1	..	2	..	1	..	..	..	..	..	..	..	1	4	1
Mania a potu	4	..	1	12	10	10	4	2	2	1	..	2	..	1	..	..	..	..	1	2	1	..	1	1	..	..	..	..	1	8	4
Marasmus	41	36	3	485	16	32	22	24	16	18	18	15	28	11	13	10	12	12	17	17	29	22	33	26	52	30	15	12	12	54	12
Measles	..	..	1	72	1	1	1	..	1	1	2	..	7	1	1	1	4	7	..	1	4	4	2	8	14	5	4	3	1	..	1
Neglect	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Neuralgia	..	..	..	2	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	2	..	..	..	..	..
Nervous prostration	..	..	..	1	1	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Old age	2	13	6	95	97	11	10	11	10	12	8	4	8	13	12	7	6	7	6	8	8	5	2	15	10	8	2	3	9	9	4
Œdema of the glottis	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
" " lungs	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Obstruction of the bowels	..	..	..	5	2	..	1	..	..	..	..	..	2	1	..	..	..	..	..	1	..	..	1	..	..	..	1	..	..	..	..
Ossification of the heart	..	1	..	4	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..
" " arteries	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Palsy	8	12	7	97	48	14	2	8	3	4	8	..	7	7	8	9	1	6	10	6	12	5	9	1	5	8	2	2	13	13	3
Poisoning	..	..	..	4	3	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	2	..	1	..	..	..	..	1	..
Pyohæmia	5	..	..	7	9	4	1	1	..	..	1	..	1	1	1	1	1	..	..	..	..	..	..	..	1	2	1	..	1	7	..
Purpura	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Pemphigus infantilis	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Rheumatism	2	1	4	18	3	2	2	1	..	..	..	..	..	1	1	2	2	1	..	2	..	..	..	3	..	..	1	..	3	..
Rupture of the heart	..	..	..	1	..	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" " uterus	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rupia	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Suicide	..	..	..	12	13	6	1	1	..	..	1	..	1	..	4	1	2	..	1	..	3	1	1	..	1	2	1	1	3	2	4

TABLE IV.—*Interments in the City of Philadelphia during* 1861—Concluded.

Division 2. *Mortality classified according to Colour, Nativity, and Wards.*

DISEASES.	ALMSHOUSE.	PEOPLE OF COLOUR.	COUNTRY.	NATIVITY.			WARDS.																							UNKNOWN WARDS.
				United States.	Foreign.	Unknown	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Scrofula	7	12	2	63	6	7	4	5	4	3	3	2	2	1	1	4	6	1	..	6	1	3	4	3	5	5	..	1	2	7	1
Smallpox	7	38	4	668	52	38	47	95	33	63	41	6	10	6	4	8	24	10	10	10	15	34	97	45	70	43	26	4	9	15	29
Softening of the brain	2	..	..	20	7	2	2	1	3	2	3	..	..	2	1	2	..	..	2	1	..	..	2	1	..	..	1	1	2	3	..
" " stomach	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
" " lung	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sore throat	..	..	..	6	2	..	1	1	..	1	..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	1	1	..
Stillborn	..	39	3	629	..	1	45	23	22	28	21	19	43	16	18	17	33	23	15	13	43	29	30	20	49	30	4	8	7	11	54
Stone	..	..	..	..	2	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syphilis	4	1	..	6	..	3	..	..	..	..	..	1	..	..	1	..	..	..	..	..	2	..	..	..	..	..	..	..	..	5	..
Suspension	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Strangulation	..	..	..	2	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stricture of œsophagus	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..
Suffocation	..	..	..	5	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	1	..
Syncope	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tetanus	8	..	1	19	2	5	3	..	1	..	1	..	..	1	1	..	3	..	..	1	1	..	1	..	..	3	..	..	..	9	..
Teething	..	..	..	30	..	..	1	1	..	2	1	1	1	..	..	..	..	..	..	1	4	..	2	3	7	1	1	1	..	2	1
Tabes mesenterica	..	4	..	33	2	..	4	4	1	..	2	1	2	..	1	2	1	..	..	..	1	..	3	3	2	6	..	..	1	1	..
Tumours	..	..	1	13	9	1	3	..	..	..	1	3	..	1	1	1	1	..	..	1	1	1	1	1	1	1	..	1	1	2	..
Ulceration	..	..	..	1	1	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" of stomach & bowels	..	1	1	12	5	1	..	2	2	1	2	..	2	..	1	..	..	..	1	2	1	1	..	..	..	..	2	..	..	..	..
" throat	..	1	..	10	..	1	1	1	..	..	..	..	1	..	..	..	..	..	..	1	..	1	..	1	..	1	1	..	1	1	1
Uræmia	..	..	..	1	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Unknown	26	6	5	60	13	31	2	4	1	2	3	2	6	5	2	2	2	1	2	..	2	2	7	1	8	2	3	..	5	31	4
Violence	..	1	1	4	6	3	1	1	..	2	..	..	1	..	..	..	2	1	..	..	..	..	..	..	..	..	..	1	1	..	2
Wounds	..	..	1	..	3	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	1
" cannon-ball	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" gunshot	..	..	6	14	3	3	2	2	..	..	..	..	1	..	..	..	1	..	..	1	1	..	..	..	2	..	..	1	2	1	..
Worms	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	..	..
Want and exposure	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Total	543	714	298	11323	2300	845	875	758	400	681	488	286	733	427	356	122	452	362	397	426	768	529	828	596	1085	809	332	248	434	1032[1]	446

[1] Deduct deaths in Philadelphia Almshouse, 543; net amount of deaths in Twenty-fourth Ward, 489.

TABLE V.—*Classified Mortality for the year* 1861.

Division 1. *Showing Sex and Age.*

DISEASES.	SEX.				AGES.														ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	110 to 120.			
CLASS I.—ZYMOTIC, EPIDEMIC, ENDEMIC, AND CONTAGIOUS DISEASES.																						
1*st Quarter*. January, February, March.																						
Cholera infantum	2	2	2	2	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	4
" morbus	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Diarrhœa	7	7	6	3	4	2	3	..	..	..	1	..	..	..	3	..	1	..	..	..	5	9	14
Diphtheria	81	65	79	63	20	33	57	27	4	1	1	1	..	1	1	..	..	..	..	..	4	142	146
Dysentery	7	2	4	2	4	..	1	1	..	..	..	..	2	1	..	..	..	..	..	..	3	6	9
Erysipelas	14	7	4	5	8	..	1	..	..	..	1	2	..	2	3	3	1	..	..	..	12	9	21
Fever, congestive	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1
" remittent	1	2	1	1	..	..	2	..	..	..	..	1	..	..	..	..	..	..	..	..	1	2	3
" scarlet	154	175	153	173	24	70	157	69	5	1	1	1	..	..	1	..	..	..	..	..	3	326	329
" typhoid or enteric	26	35	10	19	..	1	7	7	1	13	17	3	6	5	1	..	..	..	..	..	32	29	61
" typhus	3	8	1	2	..	..	..	2	..	1	3	3	..	1	..	1	..	..	..	..	8	3	11
Hooping-cough	6	6	6	6	6	..	5	1	..	..	..	..	..	..	..	..	..	..	..	..	..	12	12
Measles	5	9	5	9	2	6	5	1	..	..	..	..	..	..	..	..	..	..	..	..	..	14	14
Smallpox	114	104	83	90	44	27	58	31	7	6	22	12	9	2	..	..	..	..	..	..	45	173	218
Syphilis	1	3	..	3	2	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	1	3	4
Thrush or aphthæ	1	2	1	2	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3
Total first quarter	423	428	356	380	118	141	297	140	17	23	46	23	18	12	9	5	2	..	..	..	115	736	851
2*d Quarter*. April, May, June.																						
Cholera	..	2	..	1	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	1	1	2
" infantum	16	21	16	21	32	3	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	37	37
" morbus	2	1	1	1	1	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	2	3
Diarrhœa	10	11	7	6	7	4	1	1	..	..	1	2	1	1	1	..	2	..	..	..	8	13	21
Diphtheria	50	54	48	52	17	17	43	16	4	3	2	1	..	..	..	1	..	..	..	..	4	100	104
Dysentery	10	12	8	7	5	5	4	1	..	..	2	..	..	..	3	2	..	..	..	..	7	15	22
Erysipelas	10	13	3	10	10	..	1	1	..	1	..	1	6	..	1	1	1	..	..	..	10	13	23
Fever, bilious	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
" congestive	1	1	1	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	1	1	2
" continued	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
" intermittent	1	1	1	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1	2
" nervous	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
" remittent	1	2	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1	..	..	..	3	..	3
" scarlet	191	212	191	212	31	58	208	97	9	..	..	..	..	..	..	..	..	..	..	..	..	403	403

TABLE V.—*Classified Mortality for the year* 1861—Continued.

Division 1. *Showing Sex and Age.*

DISEASES.	SEX.				AGES.													ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	110 to 120.			
CLASS I. ZYMOTICS, &c.—continued.																							
2*d Quarter*—continued.																							
Fever, typhoid or enteric	34	29	9	8	..	..	5	6	2	4	18	11	9	4	2	2	..	..	..	..	46	17	63
" typhus	5	10	2	1	..	..	1	..	2	..	1	1	3	3	2	2	..	..	..	..	12	3	15
Hooping-cough	9	6	9	6	9	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	15
Measles	16	11	15	11	7	7	10	2	..	..	..	..	1	..	..	..	..	..	..	..	1	26	27
Smallpox	129	138	93	121	62	39	60	35	8	10	24	16	7	4	1	1	..	..	..	..	53	214	267
Syphilis	..	2	..	1	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	1	2
Thrush or aphthæ	1	1	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Varicella	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Total second quarter	487	530	406	460	185	136	339	162	26	18	50	35	27	13	10	12	4	..	..	..	151	866	1017
3*d Quarter*. July, August, September.																							
Cholera	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1
" infantum	290	267	290	267	358	159	35	5	..	..	..	..	..	..	..	..	..	..	..	..	..	557	557
" morbus	8	6	5	3	7	1	..	..	..	..	..	2	1	..	1	2	..	..	..	..	6	8	14
Diarrhœa	65	47	48	35	55	17	8	1	..	2	3	7	3	3	5	6	2	..	..	..	29	83	112
Diphtheria	73	75	71	73	15	23	65	35	6	..	2	2	..	..	..	..	..	..	..	..	4	144	148
Dysentery	56	48	38	23	25	19	9	7	..	1	7	9	3	7	6	8	2	1	..	..	43	61	104
Erysipelas	10	4	8	2	6	1	1	..	2	..	1	..	1	1	..	..	1	..	..	..	4	10	14
Fever	3	..	2	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	1	2	3
" bilious	2	3	..	..	..	..	..	..	..	..	1	..	2	..	..	2	..	..	..	..	5	..	5
" congestive	1	1	..	1	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	1	2
" intermittent	..	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
" nervous	1	2	1	1	..	..	1	..	..	1	..	..	1	..	..	..	..	..	..	..	1	2	3
" remittent	6	6	4	3	1	..	2	2	1	1	1	..	1	..	3	..	..	..	..	..	5	7	12
" scarlet	142	118	142	117	22	30	145	55	7	..	..	1	..	..	..	..	..	..	..	..	1	259	260
" typhoid or enteric	43	35	16	13	..	3	7	8	3	8	24	6	12	4	2	1	..	..	..	..	49	29	78
" typhus	4	4	1	1	..	..	..	..	..	2	2	2	1	1	..	..	..	..	..	..	6	2	8
Hooping-cough	12	16	12	16	14	11	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	28	28
Measles	11	13	11	13	5	9	8	1	1	..	..	..	..	..	..	..	..	..	..	..	..	24	24
Smallpox	74	82	55	72	31	17	42	28	6	3	11	12	4	2	..	..	..	..	..	..	29	127	156
Syphilis	1	1	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1	2
Thrush or aphthæ	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Total third quarter	802	731	705	642	541	291	327	143	27	18	53	41	30	19	17	20	5	1	..	..	186	1347	1533

TABLE V.—*Classified Mortality for the year* 1861—Continued.

Division 1. *Showing Sex and Age.*

DISEASES.	SEX.				AGES.															ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	110 to 120.			
CLASS I.—ZYMOTICS, &c.—continued.																						
4th Quarter. October, November, December.																						
Cholera infantum	8	12	8	12	7	10	3	..	..	..	..	..	..	..	..	..	..	..	..	..	20	20
Diarrhœa	21	15	5	4	4	4	1	..	..	..	1	2	3	7	..	6	5	3	..	..	27	9	36
Diphtheria	50	54	50	53	4	8	47	34	7	3	..	..	1	..	..	..	..	..	..	..	1	103	104
Dysentery	9	13	1	8	5	3	1	..	..	..	2	2	4	3	..	2	..	..	..	..	13	9	22
Erysipelas	5	1	4	..	3	..	..	1	..	..	..	..	1	1	..	..	..	..	..	..	2	4	6
Fever	2	1	..	1	..	..	..	1	..	..	1	..	..	..	..	1	..	..	..	..	2	1	3
" bilious	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
" congestive	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1
" camp	3	..	2	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	1	2	3
" nervous	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
" remittent	4	..	2	..	..	..	1	..	1	..	1	1	..	..	..	..	..	..	..	..	2	2	4
" scarlet	95	103	94	102	9	34	105	42	3	3	1	1	..	..	..	..	..	..	..	..	2	196	198
" typhoid or enteric	54	34	15	12	1	..	4	5	5	12	34	10	9	1	5	2	..	..	..	..	61	27	88
" typhus	5	6	1	3	..	..	1	3	..	..	2	2	1	..	1	..	1	..	..	..	7	4	11
Hooping-cough	18	20	18	20	22	10	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	38	38
Measles	4	5	3	4	1	..	6	..	..	..	1	1	..	..	..	..	..	..	..	..	2	7	9
Smallpox	62	55	51	50	22	22	40	14	2	1	8	5	3	..	..	..	..	..	..	..	16	101	117
Syphilis	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
Total fourth quarter	341	322	255	270	78	91	216	100	19	21	52	25	23	12	6	11	6	3	..	..	138	525	663
Total annual mortality from epidemics	2053	2011	1722	1752	922	659	1179	545	89	80	201	124	98	56	42	48	17	4	..	..	590	3474	4064
CLASS II.—UNCERTAIN OR GENERAL SEAT, SPORADIC DISEASES.																						
Abscess	26	21	7	7	5	3	1	2	1	2	7	10	3	4	6	1	2	..	..	..	33	14	47
Anthrax	2	4	..	2	1	..	..	..	..	1	1	1	..	..	1	1	..	..	..	..	4	2	6
Anæmia	10	8	7	6	7	1	2	1	1	1	1	2	1	..	..	1	..	..	..	..	5	13	18
Cancer or scirrhus	27	42	1	..	..	1	..	..	..	..	3	12	13	15	13	10	2	..	..	..	68	1	69
" of breast	..	9	..	..	..	..	..	..	..	..	..	1	3	3	..	..	1	1	..	..	9	..	9
Cramp	7	9	5	7	10	..	2	..	..	..	1	1	..	..	1	1	..	..	..	..	4	12	16
Cyanosis	38	26	38	25	62	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	63	64
Debility	442	384	244	181	341	29	33	15	4	3	30	44	47	59	63	94	46	14	4	..	401	425	826
Disease of throat	1	1	1	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Dropsy	143	141	59	43	10	4	46	27	8	7	11	30	27	46	27	31	8	1	1	..	182	102	284
Gangrene	13	33	1	14	2	6	3	4	..	..	7	5	2	2	5	6	3	1	..	..	31	15	46
Gout	4	1	..	..	..	..	..	..	..	..	..	1	..	1	1	2	..	..	..	..	5	..	5
Hectic fever	2	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1	2
Hemorrhage	38	34	17	16	15	..	6	5	2	5	12	9	5	6	3	1	3	..	..	..	39	33	72

TABLE V.—*Classified Mortality for the year* 1861—Continued.

Division 1. *Showing Sex and Age.*

DISEASES.	SEX.				AGES.															ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	110 to 120.			
CLASS II.—UNCERTAIN OR GENERAL SEAT, SPORADIC DISEASES—continued.																						
Inflammation	..	2	..	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	1	1	2
" of throat	1	2	1	2	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3
" of leg	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1
" of tonsils	1	2	1	2	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	3	3
Inanition	79	45	66	38	89	7	4	2	1	1	3	4	2	2	6	2	1	..	..	20	104	124
Marasmus	285	248	267	228	319	101	53	18	3	1	3	4	4	6	9	8	4	..	..	38	495	533
Malformation	14	3	14	3	17	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17	17
Scrofula	46	30	39	26	22	15	14	7	4	3	3	4	4	..	..	..	..	..	..	11	65	75
Sore throat	4	4	4	3	..	1	2	3	..	1	..	..	..	..	1	..	..	..	..	1	7	8
Tabes mesenterica	22	13	20	12	10	13	7	2	..	..	1	..	1	..	1	..	..	..	..	3	32	35
Tumours	7	16	3	2	1	1	3	..	..	..	1	2	5	6	2	2	..	..	..	18	5	23
Ulceration	1	1	..	1	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1	2
" of throat	5	6	2	5	2	..	3	2	..	..	..	1	..	1	2	..	..	..	..	4	7	11
Total	1219	1085	798	625	914	184	182	94	24	25	84	132	119	151	143	160	70	17	5	..	881	1423	2304
CLASS III.—NERVOUS SYSTEM.																						
Apoplexy	83	79	6	5	5	..	1	2	..	3	8	11	23	28	36	33	12	..	..	..	151	11	162
Congestion of the brain	161	114	93	79	63	30	41	22	7	9	20	23	18	16	13	9	3	..	1	..	103	172	275
Compression "	3	1	1	1	2	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	2	2	4
Convulsions	336	300	325	281	345	111	105	38	3	4	7	8	7	3	3	1	1	..	..	..	30	606	636
Concussion of the brain	7	4	2	3	2	2	1	..	..	..	1	1	..	..	1	2	1	..	..	..	6	5	11
Coup de soleil	2	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	1	1	2
Coma	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Disease of the brain	67	45	47	34	34	18	15	11	1	2	4	5	10	6	3	2	1	..	..	..	31	81	112
Dropsy "	134	88	132	86	94	66	43	15	..	..	..	1	..	1	1	1	..	..	..	..	4	218	222
Effusion "	46	27	42	24	24	18	15	6	2	1	..	3	2	..	1	..	1	..	..	..	7	66	73
Epilepsy	10	12	3	4	2	..	2	..	..	3	3	3	5	2	2	..	..	..	..	..	15	7	22
Fever of the brain	4	3	4	2	..	2	1	1	..	2	1	..	..	..	..	..	..	..	..	..	1	6	7
Hydrophobia	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
Inflammation of the brain	184	121	158	108	84	64	75	30	9	4	11	12	5	8	3	..	..	..	..	..	39	266	305
Mania	3	8	..	..	..	..	..	..	..	..	3	5	2	..	1	..	..	..	..	..	11	..	11
Mania à potu	30	2	..	..	..	..	..	..	..	..	6	12	9	3	2	..	..	..	..	..	32	..	32
Neuralgia	1	3	..	..	..	..	..	..	..	..	1	..	..	1	1	1	..	..	..	..	4	..	4
Palsy	75	81	6	1	..	2	3	..	..	2	2	4	16	21	39	50	16	2	2	..	152	7	159
Softening of the brain	19	10	1	3	1	..	1	2	..	..	3	2	3	4	8	5	..	..	..	..	24	4	29
Tetanus	18	8	10	6	9	2	1	1	1	2	1	5	..	2	2	..	..	..	..	..	10	16	26
Total	1181	910	831	638	665	316	304	129	23	32	72	98	100	95	116	104	35	2	3	..	625	1462	2094

TABLE V.—*Classified Mortality for the year* 1861—Continued.

Division 1. *Showing Sex and Age.*

DISEASES.	SEX.				AGES.														ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	to 90.	90 to 100.	100 to 110.	110 to 120.			
CLASS IV.—DISEASES OF RESPIRATORY SYSTEM.																						
Asthma	5	12	..	3	1	1	1	..	..	..	1	..	4	3	3	2	1	..	..	..	14	3	17
Congestion of the lungs	59	51	38	31	33	12	13	7	1	3	4	7	2	7	7	8	6	..	..	..	41	69	110
Consumption of the lungs	910	907	136	166	54	34	37	26	24	127	475	423	277	169	115	44	12	..	..	..	1515	302	1817
Croup	154	150	153	150	37	51	159	50	5	1	..	1	..	..	..	..	..	..	..	..	1	303	304
Disease of the lungs	9	14	5	6	7	2	2	..	..	..	5	1	2	..	1	2	1	..	..	..	12	11	23
Effusion of the chest	1	3	1	2	1	1	..	..	..	1	..	..	..	..	1	..	..	..	..	..	1	3	4
Emphysema of the lungs	..	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Dropsy of the chest	34	29	25	12	5	3	13	12	2	2	1	1	1	7	6	10	..	..	..	..	26	37	63
Hemorrhage of the lungs	15	10	1	2	1	..	1	1	..	..	5	5	8	1	2	..	1	..	..	..	22	3	25
Inflammation of the bronchi	71	67	42	36	42	17	13	2	4	..	8	7	9	10	14	8	4	..	..	..	60	78	138
" " chest	3	1	3	1	3	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	4	4
" " larynx	15	9	14	8	6	4	8	3	1	..	..	1	..	..	..	1	..	..	..	..	2	22	24
" " lungs	367	314	262	222	236	98	93	36	7	14	35	31	30	35	30	26	8	2	..	..	197	484	681
" " pleura	14	7	4	3	2	1	2	2	..	..	5	1	2	2	2	1	..	1	..	..	14	7	21
Total	1657	1575	684	643	428	224	343	140	44	148	539	478	335	234	181	102	33	3	..	..	1905	1327	3232
CLASS V.—ORGANS OF CIRCULATION.																						
Aneurism	6	3	1	1	2	..	..	..	..	..	..	2	..	2	2	1	..	..	..	..	7	2	9
Disease of the heart	136	129	40	28	12	9	11	10	10	16	19	32	26	39	34	38	8	1	..	..	197	68	265
Dropsy "	14	18	6	8	2	..	5	6	1	..	1	3	1	4	2	5	2	..	..	..	18	14	32
Enlargement "	5	7	1	2	..	..	1	..	1	1	1	4	1	..	2	1	..	..	..	..	9	3	12
Inflammation "	11	12	6	3	..	..	3	2	2	2	..	2	6	1	2	3	..	..	..	..	14	9	23
Ossification "	3	1	..	..	..	..	..	..	..	..	..	..	..	..	1	3	..	..	..	..	4	..	4
Pyohæmia	12	8	3	4	2	1	..	1	2	1	5	2	3	1	1	1	..	..	..	..	13	7	20
Rupture of the heart	1	1	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	2	..	2
Syncope	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Total	188	180	57	46	18	10	20	19	16	20	28	45	37	47	45	52	10	1	..	..	265	103	368
CLASS VI.—DISEASES OF THE DIGESTIVE ORGANS.																						
Consumption of the stomach and bowels	7	8	4	2	2	1	1	2	..	..	2	2	1	2	2	..	..	..	..	..	9	6	15
Cancer of the stomach	27	37	3	2	..	2	3	..	..	..	1	11	13	12	14	8	..	..	..	..	59	5	64
" spleen	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1
" liver	4	5	..	..	..	..	..	..	..	..	1	1	1	3	2	1	..	..	..	..	9	..	9
" rectum	3	1	..	..	..	..	..	..	..	..	1	..	2	..	1	..	..	..	..	..	4	..	4
Cirrhosis	14	7	..	..	..	..	..	..	..	..	1	3	4	4	7	2	..	..	..	..	21	..	21
Constipation	3	1	1	..	..	..	..	1	..	..	..	1	1	..	1	..	..	..	..	..	3	1	4

TABLE V.—*Classified Mortality for the year* 1861—Continued.

Division 1. *Showing Sex and Age.*

DISEASES.	SEX.				AGES.														ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70to 80.	80 to 90.	90 to 100.	100 to 110.	110 to 120.			
CLASS VI.—DIGESTIVE ORGANS—continued.																							
Colic	3	3	2	2	3	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	2	4	6
Congestion of the bowels	2	3	2	..	..	..	2	..	..	..	1	1	..	..	..	..	1	..	..	..	3	2	5
" " liver	7	5	5	2	6	..	1	..	..	..	..	3	..	1	..	1	..	..	..	..	5	7	12
Disease of the liver	19	26	6	3	6	..	1	2	..	..	4	4	10	7	5	6	..	..	..	..	36	9	45
" " stomach and bowels	12	5	4	2	4	..	1	..	..	1	2	2	1	2	2	2	..	..	..	..	11	6	17
Dropsy of the abdomen	4	4	2	..	..	1	..	1	..	..	..	1	..	2	2	1	..	..	..	..	6	2	8
Dyspepsia	3	5	..	1	1	..	..	..	..	..	..	1	3	..	..	2	1	..	..	..	7	1	8
Enlargement of the liver	..	2	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Hemorrhage of the stomach and bowels	9	3	1	..	1	..	..	..	..	..	4	2	3	..	..	2	..	..	..	..	11	1	12
Hernia	7	7	..	1	1	..	..	..	..	..	1	2	1	1	4	4	..	..	..	..	13	1	14
Inflammation of the stomach and bowels	107	131	63	67	53	23	26	15	6	7	21	27	17	13	19	9	2	..	..	..	108	130	238
" " peritoneum	24	43	9	8	5	1	..	6	2	3	17	11	9	4	7	2	..	..	..	..	50	17	67
" " liver	20	20	4	2	3	1	..	1	1	..	1	7	7	6	10	2	1	..	..	..	34	6	40
Ileus	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	2	..	2
Intussusception	4	4	2	2	1	..	2	1	..	..	1	..	1	..	1	1	..	..	..	..	4	4	8
Jaundice	13	11	5	3	6	..	2	..	..	..	2	2	..	4	3	4	1	..	..	..	16	8	24
Obstruction of the bowels	2	5	1	..	1	..	..	..	..	..	..	1	..	2	2	1	..	..	..	..	6	1	7
Stricture of the œsophagus	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	2	..	2
Teething	13	17	13	17	17	12	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	30	30
Ulceration of the stomach and bowels	10	8	2	..	..	..	1	..	..	1	5	1	4	1	3	1	1	..	..	..	16	2	18
Worms	2	1	2	1	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	3	3
Total	323	363	132	117	112	42	42	31	10	12	66	83	80	65	85	50	8	..	..	..	437	249	686
CLASS VII.—DISEASES OF THE URINARY SYSTEM.																							
Albuminuria	16	4	2	1	..	..	2	..	1	..	4	5	..	7	1	..	..	..	..	..	17	3	20
Cancer of the bladder	1	1	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	2	..	2
" " testicles	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Diabetes	11	1	2	..	1	..	1	..	..	..	1	2	1	3	2	1	..	..	..	..	10	2	12
Disease of the kidneys	22	7	4	2	..	..	2	2	..	2	5	2	6	3	3	3	..	1	..	..	23	6	29
" " bladder	2	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	2	..	2
" " prostate gland	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2	..	2
Inflammation of the kidneys	5	3	2	1	..	..	1	1	1	..	..	..	..	1	1	1	2	..	..	..	5	3	8
" " bladder	13	15	2	..	1	1	..	..	..	..	7	6	2	1	4	4	2	..	..	..	26	2	28
" " prostate gland	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1
Stone in bladder	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	2	..	2
Uræmia	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	2	..	2
Total	78	31	13	4	2	1	7	3	2	2	17	17	9	16	15	11	6	1	..	..	92	17	109

TABLE V.—*Classified Mortality for the year* 1861—Continued.

Division 1. *Showing Sex and Age.*

DISEASES.	SEX.				AGES.														ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	110 to 120.			
CLASS VIII.—DISEASES OF THE ORGANS OF GENERATION.																							
Cancer of the uterus	..	30	..	..	..	..	..	..	..	..	2	6	6	8	7	1	..	..	..	..	30	..	30
Disease of the ovaries	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
" " uterus	..	3	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	3	..	3
Dropsy of the ovaries	..	2	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	2	..	2
Hemorrhage of the uterus	..	13	..	1	..	..	..	..	..	1	1	9	2	..	..	..	..	..	..	..	12	1	13
Inflammation " "	..	2	..	..	..	..	..	..	..	..	3	1	..	..	..	..	..	..	..	..	4	..	4
" " ovaries	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
Puerperal fever	..	15	..	..	..	..	..	..	..	..	7	7	1	..	..	..	..	..	..	..	15	..	15
" convulsions	..	25	..	3	..	..	..	..	..	3	14	7	1	..	..	..	..	..	..	..	22	3	25
Rupture of uterus	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
Total	..	95	..	4	..	..	..	..	..	4	28	34	12	9	7	1	..	..	..	..	91	4	95
CLASS IX.—DISEASES OF THE ORGANS OF LOCOMOTION.																							
Caries	1	1	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	1	2
" of the spine	2	1	2	1	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	3	3
Concussion of the spine	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Coxalgia	3	2	3	2	..	..	..	4	1	..	..	..	..	..	..	..	..	..	..	..	..	5	5
Disease of the pelvis	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
" " spine	5	6	4	4	..	2	2	1	1	2	..	1	..	2	..	..	..	..	..	..	3	8	11
Effusion on spiual marrow	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Fracture of spine	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Inflammation of the spine	5	3	4	3	1	1	2	3	..	..	..	..	..	1	..	..	..	..	..	..	1	7	8
Rheumatism	10	13	6	1	..	..	..	4	2	1	2	2	6	1	2	3	..	..	..	..	16	7	23
Total	29	27	21	12	2	4	4	14	6	3	3	4	7	4	2	3	..	..	..	..	23	33	56
CLASS X.—DISEASES OF THE INTEGUMENTARY SYSTEM.																							
Cancer of the skin	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	.	1
Eczema	1	1	1	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Pemphigus	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Purpura	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
Rupia	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Total	4	2	2	2	4	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	2	4	6

TABLE V.—*Classified Mortality for the year* 1861—Continued.

Division 1. *Showing Sex and Age.*

DISEASES.	SEX.				AGES.														ADULTS.	MINORS.	TOTAL.
	Males.	Females.	Boys.	Girls.	Under 1 year.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	110 to 120.			
CLASS XI.—OLD AGE	66	137	..	..	..	..	..	..	..	..	..	..	..	1	11	57	95	34	4	1	203	..	203
CLASS XII.—EXTERNAL CAUSES.																							
Asphyxia	30	17	29	15	41	3	..	..	..	..	1	..	..	..	..	1	1	..	..	..	3	44	47
Burns and scalds	27	54	24	37	6	13	24	11	3	4	11	4	1	..	2	..	1	1	..	..	20	61	81
Casualties	103	19	40	11	5	8	12	11	9	6	24	18	11	8	6	3	1	..	..	..	71	51	122
Drowned	93	6	32	3	..	..	5	15	9	6	31	14	9	5	3	2	..	..	..	..	64	35	99
Debauch	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
Exposure and want	2	2	..	1	1	..	..	..	..	..	2	..	..	1	..	..	..	..	..	..	3	1	4
Fracture	14	8	4	1	..	1	..	1	2	1	3	2	2	3	2	1	2	2	..	..	17	5	22
Intemperance	14	15	..	..	..	..	..	..	..	..	5	15	4	4	1	..	..	..	..	..	29	..	29
Neglect	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Poisoning	3	4	1	1	..	1	1	..	..	..	..	2	..	1	..	2	..	..	..	..	5	2	7
Suicide	26	5	..	..	..	..	..	..	..	..	5	9	10	2	3	2	..	..	..	..	31	..	31
Suspension by the neck	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Strangulation	1	1	1	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2
Suffocation	2	3	2	3	1	..	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	5	5
Violence	11	2	1	2	1	..	..	..	1	1	5	3	1	1	..	..	..	..	..	..	10	3	13
Wounds	4	..	1	..	..	..	..	..	..	1	2	..	1	..	..	..	..	..	..	..	3	1	4
" gunshot	21	..	7	..	..	..	..	..	..	7	9	2	3	..	..	..	..	..	..	..	14	7	21
Total	352	218	142	76	57	26	44	41	24	26	99	70	42	25	17	11	5	3	..	..	272	218	490
CLASS XIII.—UNKNOWN	51	53	27	29	41	6	6	1	2	..	11	7	15	4	5	6	..	..	..	..	48	56	104
CLASS XIV.—STILLBORN	364	266	364	266	630	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	630	630

TABLE V.—*Classified Mortality for the year* 1861—Continued.

Division 2. *Showing Location, Colour, Nativity, and Wards.*

DISEASES.	ALMSHOUSE.	PEOPLE OF COLOUR.	COUNTRY.	NATIVITY.			WARDS.																						UNKNOWN WARDS.
				United States.	Foreign.	Unknown	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
CLASS 1.—ZYMOTIC, EPIDEMIC, ENDEMIC, AND CONTAGIOUS DISEASES.																													
1*st Quarter.* January, February, March.																													
Cholera infantum	..	..	..	4	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	1	..	..
" morbus	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Diarrhœa	..	1	1	12	2	..	1	..	1	1	..	..	..	1	..	1	1	..	..	..	3	..	2	1	1	..	..	..	..	..
Diphtheria	2	3	4	139	4	3	10	8	5	3	5	1	7	2	3	6	9	3	5	4	4	4	21	5	9	11	2	2	3	5	5
Dysentery	2	1	..	6	1	2	..	..	1	2	..	..	1	..	..	..	..	..	1	..	..	..	1	..	1	..	..	..	..	2	..
Erysipelas	1	1	..	16	4	1	1	1	1	2	1	..	1	1	..	1	..	2	..	1	..	1	2	..	1	1	..	1	1	1	1
Fever, congestive	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" remittent	..	..	..	2	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..
" scarlet	..	1	8	324	3	2	26	24	6	18	4	4	23	2	3	11	13	19	9	10	16	21	13	15	20	21	13	2	16	5	7
" typhoid or enteric	1	3	..	47	11	3	3	4	2	1	1	1	4	2	4	5	1	1	4	3	1	3	4	1	2	3	2	1	1	4	3
" typhus	..	..	..	6	5	..	..	1	1	1	1	..	..	..	..	..	..	2	1	..	..	1	..	..	..	1	1	..	..	1	..
Hooping-cough	..	..	..	12	..	..	1	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	1	3	3	..	..	..	1	1	..
Measles	..	..	..	14	..	..	1	..	..	..	2	..	1	..	1	..	..	..	..	..	..	1	..	1	3	3	..	..	1	..	..
Smallpox	7	16	1	187	17	14	21	17	3	26	7	3	6	..	3	1	3	7	1	..	7	6	40	10	19	6	8	1	2	10	10
Syphilis	2	1	..	4	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
Thrush or aphthæ	..	..	..	3	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..
Total first quarter	15	27	14	778	48	25	66	55	20	55	21	11	44	8	15	26	27	34	21	18	32	37	85	37	59	48	26	7	27	32	26
2*d Quarter.* April, May, June.																													
Cholera	..	..	..	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
" infantum	..	3	..	37	..	..	2	..	1	2	1	..	2	2	1	1	4	1	..	3	3	..	3	4	3	..	3	..	..	..	1
" morbus	..	..	..	2	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..
Diarrhœa	1	2	..	18	3	..	..	1	..	2	3	..	1	..	..	..	2	..	1	..	..	1	..	1	4	2	..	..	..	2	1
Diphtheria	2	1	1	98	3	3	10	7	..	1	3	1	3	1	1	6	5	2	2	7	5	2	8	3	7	13	..	1	8	6	1
Dysentery	3	..	..	15	4	3	2	..	..	1	..	..	..	2	..	..	3	..	..	1	1	1	1	2	5	..	..	..	..	3	..
Erysipelas	3	2	..	14	5	4	2	2	..	..	1	..	2	1	1	1	..	..	..	..	1	..	..	2	4	..	..	..	3	3	..
Fever, bilious	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
" congestive	..	1	..	2	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
" continued	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
" intermittent	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..
" nervous	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
" remittent	..	..	1	2	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
" scarlet	..	2	6	398	3	2	14	8	3	3	2	8	14	5	9	5	18	21	20	15	21	33	37	41	29	43	13	5	11	9	10

TABLE V.—*Classified Mortality for the year* 1861—Continued.

Division 2. *Showing Location, Colour, Nativity, and Wards.*

DISEASES.	ALMSHOUSE.	PEOPLE OF COLOUR.	COUNTRY.	NATIVITY.			WARDS.																								UNKNOWN WARDS.
				United States.	Foreign.	Unknown.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
CLASS I.—ZYMOTICS, &c.—continued.																															
2d Quarter—continued.																															
Fever, typhoid or enteric	2	4	3	41	19	3	2	4	1	6	1	..	6	2	..	3	1	2	3	4	2	1	3	5	2	..	1	2	2	4	3
" typhus	4	..	..	7	2	6	..	..	..	1	1		..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	1	8	1	
Hooping-cough	..	..	..	15	..	..	..	1	1	1	..	..	..	..	..	..	..	1	..	2	3	..	1	1	3	..	..	..	1	..	
Measles	..	..	1	26	1	..	..	..	1	..	..	..	1	..	..	..	1	5	..	1	..	3	1	6	2	1	1	3	..	..	..
Smallpox	..	12	..	236	18	13	10	21	12	15	23	..	1	2	..	4	7	3	4	4	5	16	32	15	35	29	11	2	4	3	7
Syphilis	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	
Thrush or aphthæ	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	
Varicella	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	
Total second quarter	17	27	12	919	61	37	42	45	19	32	35	10	32	16	12	20	42	36	30	37	43	59	89	82	95	89	29	13	29	45	24
3d Quarter. July, August, September.																															
Cholera	..	..	..	1	..	..													1	..	..	..	..	..	..	..	..	..	..	..	..
" infantum	2	26	8	555	1	1	35	31	18	22	19	12	38	18	8	18	16	24	13	9	33	18	37	20	48	36	14	17	10	21	14
" morbus	..	..	1	9	4	1	..	..	..	..	2	1	1	..	..	..	1	..	..	1	3	..	..	..	3	1	..	..	..	..	
Diarrhœa	15	4	3	82	19	11	5	5	4	5	3	3	7	2	..	5	2	2	1	1	4	4	6	9	9	3	3	4	3	16	3
Diphtheria	..	11	2	142	3	3	12	3	4	6	5	4	8	2	3	3	3	8	11	6	8	11	11	1	8	16	2	..	3	4	4
Dysentery	6	4	8	76	18	10	4	6	2	1	3	3	2	5	5	2	3	2	2	2	4	4	7	5	10	2	3	3	2	10	4
Erysipelas	..	..	..	12	2	..	3	1	..	..	..	..	..	..	..	..	..	1	..	2	..	1	..	..	..	3	1	1	..	1	..
Fever	..	..	..	1	2	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
" bilious	..	..	..	2	3	..	2	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..	..
" congestive	..	1	..	2	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" intermittent	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..
" nervous	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..
" remittent	..	3	..	11	1	..	4	1	..	..	1	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	1	..	..	3	..
" scarlet	..	3	5	253	3	4	9	8	1	7	2	1	21	5	4	2	13	5	4	4	11	17	38	21	24	27	9	2	11	6	3
" typhoid or enteric	1	3	2	57	20	1	6	6	1	3	2	1	4	3	2	1	..	..	2	3	2	2	4	3	11	5	3	4	5	1	2
" typhus	..	..	..	6	2	..	..	..	1	..	1	..	..	..	..	..	1	..	..	2	..	..	..	2	..	1	..	..	..	..	
Hooping-cough	..	3	..	28	..	..	1	4	..	5	..	..	4	..	..	..	1	..	1	..	2	1	1	1	3	2	..	..	1	1	..
Measles	..	..	..	24	..	..	..	..	..	1	..	..	2	..	..	..	2	1	..	..	3	..	1	1	9	1	2	..	..	..	1
Smallpox	..	6	3	142	9	5	9	28	13	11	5	2	2	3	..	3	7	..	4	5	1	4	14	9	12	6	4	1	2	..	8
Syphilis	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..
Thrush or aphthæ	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Total third quarter	25	64	32	1409	87	37	93	93	44	61	43	27	90	38	22	35	50	41	41	34	75	63	119	70	139	102	43	32	39	65	39

TABLE V.—*Classified Mortality for the year* 1861—Continued.
Division 2. *Showing Location, Colour, Nativity, and Wards.*

DISEASES.	ALMSHOUSE.	PEOPLE OF COLOUR.	COUNTRY.	NATIVITY.			WARDS.																							UNKNOWN WARDS.
				United States.	Foreign.	Unknown	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
CLASS I.—ZYMOTICS, &c.—continued.																														
4th Quarter. October, November, December.																														
Cholera infantum	..	..	2	20	..	..	..	2	1	3	..	..	1	1	..	..	..	..	..	..	2	..	..	1	2	2	..	..	1	2	..
Diarrhœa	5	1	2	20	9	7	4	..	1	..	..	..	2	..	1	..	2	1	1	..	2	1	2	6	2	1	..	..	7	1
Diphtheria	..	2	4	100	2	2	14	4	3	2	3	1	1	..	3	8	7	3	9	8	3	2	4	5	5	5	1	2	3	3	1
Dysentery	1	2	1	13	7	2	1	..	1	1	2	..	2	1	..	1	1	..	..	1	..	..	1	2	3	..	..	..	2	2	..
Erysipelas	..	..	..	6	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	2	..	1	..	..	..	..	..	..
Fever	..	..	..	2	1	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
" bilious	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
" congestive	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" camp	..	..	1	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
" nervous	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
" remittent	..	..	2	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
" scarlet	..	1	3	191	6	1	10	3	5	2	7	6	2	1	7	7	5	3	3	7	33	4	11	14	23	12	2	4	5	1 6	3
" typhoid or enteric	1	2	7	61	20	7	3	4	..	3	1	1	4	3	5	1	4	2	2	3	5	4	8	3	9	5	2	..	4		..
" typhus	..	..	2	7	4	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	1	1	..	..	2	1	..	..	1	..	..
Hooping-cough	..	1	2	37	..	1	5	1	..	1	2	..	2	..	..	..	4	1	1	..	3	3	4	2	3	2	1	..	1	..	..
Measles	..	..	..	8	..	1	..	..	..	..	..	..	3	1	..	1	1	1	..	..	1	..	..	..	..	1	..	..	..	..	..
Smallpox	..	4	..	103	8	6	7	29	5	11	6	1	1	1	1	..	7	..	1	1	2	8	11	11	4	2	3	..	1	..	4
Syphilis	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Total fourth quarter	7	13	26	573	59	31	46	44	16	23	21	10	18	9	17	20	32	11	17	21	53	24	45	44	54	31	10	6	19	36	10
Total annual mortality from epidemics	64	131	84	3679	255	130	247	237	99	171	120	58	184	71	66	101	151	125	109	110	203	183	338	233	347	270	108	58	114	178	99
CLASS II.—UNCERTAIN OR GENERAL SEAT SPORADIC DISEASES.																														
Abscess	1	2	3	38	6	3	4	3	2	2	1	1	4	..	2	1	1	1	3	1	1	1	..	3	..	4	3	..	3	2	1
Anthrax	1	..	..	4	1	1	1	1	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	..
Anæmia	..	..	..	16	2	..	..	2	..	2	1	..	2	..	..	..	..	1	..	1	1	..	..	3	1	1	1	..	1	1	..
Cancer or scirrhus	3	..	2	38	27	4	4	3	1	3	1	1	4	3	1	4	4	2	3	2	3	5	3	3	2	2	1	1	2	6	3
" of breast	1	..	..	4	4	1	1	..	..	..	..	..	..	..	..	..	1	1	1	..	..	..	1	..	..	1	..	..	..	..	2	1
Cramp	..	..	..	13	3	..	..	1	..	1	..	..	..	..	1	..	1	2	1	2	1	..	1	..	4	..	..	..	..	..	1
Cyanosis	2	2	1	62	1	1	10	2	2	..	3	..	3	4	2	3	..	..	1	5	3	..	2	2	2	2	1	3	6	5	2
Debility	41	63	5	575	175	76	52	40	21	39	36	25	35	26	26	27	21	14	19	27	47	22	51	36	57	40	19	15	9	70	47
Disease of throat	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..
Dropsy	7	25	10	178	92	14	24	13	4	13	12	2	14	9	6	7	9	7	10	5	12	13	13	8	22	18	10	3	11	19	10
Gangrene	5	..	1	32	9	5	4	..	1	4	..	1	..	2	..	1	1	1	..	..	3	5	2	2	4	5	..	1	1	7	..
Gout	..	..	..	5	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	2	..	1	..	..	..	..	..	..	..	..	..
Hectic fever	..	..	..	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Hemorrhage	1	4	1	48	21	3	2	5	1	4	6	1	5	6	1	1	6	1	1	3	4	4	2	7	2	1	1	1	2	4	..

TABLE V.—*Classified Mortality for the year* 1861—Continued.

Division 2. *Showing Location, Colour, Nativity, and Wards.*

DISEASES.	Almshouse.	People of Colour.	Country.	Nativity.			Wards.																						Unknown Wards.
				United States.	Foreign.	Unknown.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
CLASS II.—Uncertain or General Seat, Sporadic Diseases—continued.																													
Inflammation	..	..	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..
" of throat	..	..	..	3	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..
" of leg	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" of tonsils	..	..	..	3	..	..	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Inanition	13	3	3	111	7	6	9	10	3	9	2	2	2	1	1	11	1	2	3	3	2	5	1	4	13	7	3	5	..	18	4
Marasmus	41	36	3	485	16	32	22	24	16	18	18	15	28	11	13	10	12	12	17	17	29	22	33	26	52	30	15	12	12	54	12
Malformation	..	..	..	17	..	..	4	..	..	1	..	..	1	..	1	1	..	1	2	..	..	..	1	2	1	1	..	..	1	..	..
Scrofula	7	12	2	63	6	7	4	5	4	3	3	2	2	1	1	4	6	1	..	6	1	3	4	3	5	5	..	1	2	7	1
Sore throat	..	..	..	6	2	..	1	1	..	1	..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	1	1	..
Tabes mesenterica	..	4	..	33	2	..	4	4	1	..	2	1	2	..	1	2	1	..	..	..	1	..	3	3	2	6	..	..	1	1	..
Tumours	..	..	1	13	9	1	3	..	..	..	1	3	..	1	1	1	1	..	..	1	1	1	1	1	1	1	..	1	1	2	..
Ulceration	..	..	..	1	1	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" of throat	..	1	..	10	..	1	1	1	..	..	..	..	1	..	..	..	..	..	..	1	..	1	..	1	..	1	1	..	1	1	1
Total	123	152	33	1764	385	155	152	116	57	100	86	56	103	65	59	76	65	46	62	77	115	84	118	104	169	125	55	43	54	201	83
CLASS III.—Nervous System.																													
Apoplexy	10	6	6	86	59	17	9	9	8	9	6	4	8	7	5	9	5	5	2	4	5	3	3	6	5	10	2	3	3	20	6
Congestion of the brain	12	18	4	225	36	14	28	16	8	19	12	6	10	12	8	6	6	2	9	8	9	7	18	8	23	13	5	1	17	18	2
Compression "	..	..	..	2	2	..	..	..	1	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	1	..	..
Convulsions	11	27	6	600	23	13	32	33	16	32	20	15	25	14	11	13	24	21	17	13	44	31	47	26	68	47	11	11	19	29	11
Concussion of the brain	..	1	..	9	2	..	3	1	..	1	..	2	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	..	..
Coup de soleil	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Coma	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Disease of the brain	1	1	3	99	9	4	5	9	2	2	6	2	4	3	3	6	3	2	7	4	17	6	1	3	3	14	..	..	5	2
Dropsy "	1	9	5	213	3	6	10	10	12	9	7	7	3	2	7	7	9	9	9	4	16	7	11	11	20	14	3	7	5	13	5
Effusion "	5	5	3	67	1	5	5	1	4	2	2	3	8	1	6	5	..	4	1	6	3	1	1	2	1	5	2	1	..	4	2
Epilepsy	5	1	..	10	7	5	2	..	1	1	..	..	1	1	..	..	..	..	..	..	3	2	..	1	..	..	1	..	1	8	..
Fever of the brain	..	..	1	7	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1	..	..	1	1	..	1	..	..	..	..
Hydrophobia	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
Inflammation of the brain	1	8	4	278	22	5	30	16	10	16	5	6	12	8	8	11	14	7	5	12	17	12	19	17	26	13	5	6	3	13	10
Mania	1	..	..	6	2	3	..	..	..	..	..	..	1	..	..	..	1	..	2	..	1	..	..	..	..	..	..	..	1	4	1
Mania à potu	4	..	1	12	10	10	4	2	2	1	..	2	..	1	..	..	..	..	1	2	1	..	1	1	..	..	..	..	1	8	4
Neuralgia	..	..	..	2	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	2	..	..	..	..	..
Palsy	8	12	7	97	48	14	2	8	3	4	8	..	7	7	8	9	1	6	10	6	12	5	9	1	5	8	2	2	13	13	3
Softening of the brain	2	..	..	20	7	2	2	1	3	2	3	..	..	2	1	2	..	..	2	1	..	..	2	1	..	..	1	1	2	3	..
Tetanus	8	..	1	19	2	5	3	..	1	..	1	..	..	1	1	..	3	..	..	1	1	..	1	..	..	3	..	..	..	9	..
Total	69	88	41	1754	236	104	137	106	72	98	70	47	80	59	59	68	67	56	66	63	130	74	115	78	153	129	33	3	67	147	46

TABLE V.—*Classified Mortality for the year* 1861—Continued.
Division 2. *Showing Location, Colour, Nativity, and Wards.*

DISEASES.	ALMSHOUSE.	PEOPLE OF COLOUR.	COUNTRY.	NATIVITY.			WARDS.																							UNKNOWN WARDS.
				United States.	Foreign.	Unknown.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
CLASS IV.—DISEASES OF RESPIRATORY SYSTEM.																														
Asthma	3	1	..	7	6	4	1	..	..	2	..	1	2	..	..	..	1	1	..	..	..	1	1	..	2	..	..	..	..	4	1
Congestion of the lungs	6	2	3	84	21	5	3	7	2	8	6	2	5	2	1	2	7	3	..	2	3	..	8	4	8	15	1	..	3	11	4
Consumption of the lungs	154	139	28	1008	613	196	95	101	51	104	71	29	124	78	46	52	38	41	54	59	83	48	89	56	125	84	28	33	38	224	38
Croup	..	8	5	298	3	3	15	8	11	16	10	4	12	6	4	8	8	4	8	13	25	18	18	9	27	14	19	7	19	11	5
Disease of the lungs	..	1	2	18	5	..	4	1	..	1	1	..	1	1	..	..	..	1	2	1	3	..	1	..	1	2	1	..	..	..	..
Effusion of the chest	..	..	..	3	1	..	..	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Emphysema of the lungs	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Dropsy of the chest	..	..	3	51	10	2	2	7	3	..	2	3	1	4	..	2	3	1	4	3	4	6	1	..	1	4	..	1	4	4	..
Hemorrhage of the lungs	1	2	3	18	4	3	..	1	1	..	1	1	2	1	1	1	..	..	..	1	2	..	..	2	..	2	..	..	2	1	3
Inflammation of the bronchi	6	17	2	111	18	9	13	6	7	14	6	2	9	5	2	4	2	1	1	8	13	4	7	3	3	7	2	3	2	7	5
" " chest	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	2	..	..	..	..	..	..	..	..
" " larynx	..	1	1	23	1	..	2	2	..	..	..	1	3	2	..	2	1	..	2	..	2	1	1	1	..	2	..	1	..	..	..
" " lungs	15	53	21	567	85	29	45	25	22	37	22	18	43	13	24	16	15	17	18	16	35	21	25	23	52	35	20	14	41	47	16
" " pleura	4	1	..	7	8	6	1	..	2	1	1	..	3	1	2	..	..	1	..	..	..	..	1	..	..	3	..	..	..	5	..
Total	189	225	68	2200	775	257	181	158	100	183	121	61	205	113	80	88	77	70	89	103	170	99	155	98	219	168	71	60	109	314	72
CLASS V.—ORGANS OF CIRCULATION.																														
Aneurism	1	1	1	5	3	1	..	..	..	..	1	1	..	..	1	..	1	..	..	..	..	..	..	..	1	..	..	..	1	2	..
Disease of the heart	12	14	11	169	78	18	12	11	5	11	5	5	19	20	12	12	10	4	10	8	12	7	6	8	13	14	6	7	8	20	9
Dropsy "	1	2	1	20	10	2	..	1	..	2	1	..	1	2	..	2	..	2	3	1	1	..	2	..	4	1	1	3	3	..	1
Enlargement "	..	1	..	7	4	1	..	..	..	1	1	..	1	..	1	1	..	..	1	..	1	..	..	..	..	..	1	1	1	2	..
Inflammation "	1	2	..	13	9	1	1	2	..	2	2	..	1	1	1	1	..	1	..	1	1	..	..	..	3	3	..	2	..	1	..
Ossification "	..	1	..	4	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..
Pyohæmia	5	..	..	7	9	4	1	1	..	..	1	..	1	1	1	1	1	..	..	..	..	..	..	..	1	2	1	..	1	7	..
Rupture of the heart	..	..	..	1	..	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syncope	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	20	21	13	227	113	28	15	16	5	16	12	6	23	24	16	19	12	7	14	10	16	7	8	8	22	20	9	13	15	32	10
CLASS VI.—DISEASES OF THE DIGESTIVE ORGANS.																														
Consumption of the stomach and bowels	..	1	..	8	6	1	..	..	..	2	..	..	..	..	1	..	..	..	..	..	1	3	1	1	2	..	..	1	1	1	1
Cancer of the stomach	4	2	1	32	27	5	5	2	1	3	5	4	5	5	1	1	1	..	2	3	3	1	3	1	3	4	..	1	3	4	2
" spleen	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
" liver	..	..	..	6	3	..	..	..	1	1	1	..	2	2	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..
" rectum	..	..	..	1	3	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Cirrhosis	4	..	..	8	8	5	1	..	..	4	..	1	..	1	2	1	..	..	1	1	..	..	..	..	..	1	..	..	2	5	1
Constipation	..	..	..	2	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	..	..	..

TABLE V.—*Classified Mortality for the year* 1861—Continued.

Division 2. *Showing Location, Colour, Nativity, and Wards.*

DISEASES.	Almshouse.	People of colour.	Country.	Nativity.			Wards.																								Unknown Wards.
				United States.	Foreign.	Unknown.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
CLASS VI.—Digestive Organs—continued.																															
Colic	..	..	1	5	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	1	..	..	..	1	..	1
Congestion of the bowels	..	..	..	3	2	..	2	..	..	..	1	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..
" " liver	..	..	..	10	2	..	..	2	..	..	..	..	1	..	..	1	1	..	..	..	1	..	..	2	2	1	..	..	1	..	..
Disease of the liver	..	..	1	32	13	..	4	3	..	1	1	..	1	2	2	..	..	1	1	3	3	3	1	5	5	3	..	2	1	..
" " stomach and bowels	..	..	1	14	3	..	..	..	2	2	..	..	1	1	..	..	..	1	..	2	1	..	..	..	1	..	..	3	1	1
Dropsy of the abdomen	2	1	..	3	3	2	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	3	..	1	..	..	..	..	2	..
Dyspepsia	..	..	..	6	2	..	1	1	..	..	..	..	..	3	..	1	..	..	..	..	..	..	..	1	..	..	..	..	1	..
Enlargement of the liver	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..
Hemorrhage of the stomach and bowels	..	..	..	10	2	..	..	1	..	..	1	1	..	2	..	..	..	..	2	..	..	..	..	1	..	1	..	..	1	1	1
Hernia	..	..	1	5	8	1	..	..	..	1	..	1	3	..	1	..	..	1	..	1	..	1	..	..	1	2	..	1	..	..	..
Inflammation of the stomach and bowels	9	7	5	168	58	12	18	15	7	11	5	5	11	2	7	7	11	6	4	8	13	8	18	8	19	5	15	4	7	15	4
" " peritoneum	5	2	3	36	25	6	4	5	3	3	3	..	1	..	6	1	..	3	1	2	2	2	2	3	7	3	2	..	1	9	1
" " liver	1	1	..	19	20	1	2	2	..	2	1	1	4	5	1	3	..	1	1	2	1	2	1	1	1	1	3	2	2	1	..
Ileus	..	..	..	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Intussusception	..	..	..	7	1	..	..	..	..	..	..	..	1	..	1	..	1	..	..	..	1	..	..	1	..	1	1	..	1	..	..
Jaundice	2	1	2	16	5	3	..	1	1	..	..	1	3	2	1	..	1	1	..	..	3	..	1	1	..	..	..	3	3	..
Obstruction of the bowels	..	..	..	5	2	..	1	..	..	..	..	..	2	1	..	..	..	..	1	..	..	1	..	..	..	1	..	..	..	..	..
Stricture of the œsophagus	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Teething	..	..	..	30	..	..	1	1	..	2	1	1	1	..	..	..	..	..	1	4	..	2	3	7	1	1	1	..	2	1	..
Ulceration of the stomach and bowels	..	1	1	12	5	1	..	2	2	1	2	..	2	..	1	..	..	..	1	2	1	1	..	..	..	2	..	..	..	..	..
Worms	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	..	..
Total	27	16	16	446	203	37	40	35	16	35	24	15	37	26	25	18	16	12	15	26	35	28	36	22	55	26	28	11	27	48	14
CLASS VII.—Diseases of the Urinary System.																															
Albuminuria	..	1	1	14	5	1	..	2	..	1	..	2	1	3	1	2	..	..	1	1	1	..	..	1	1	2	..	..	..	..	..
Cancer of the bladder	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
" testicles	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diabetes	3	..	..	5	5	2	..	1	1	..	..	..	1	1	..	2	..	..	1	..	..	1	..	..	..	..	..	..	1	3	..
Disease of the kidneys	3	2	..	16	8	5	..	3	..	2	..	..	3	1	2	1	..	1	..	2	..	2	1	1	..	1	1	1	1	6	..
" " bladder	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
" " prostate gland	..	..	..	..	2	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Inflammation of the kidneys	..	..	..	6	2	..	1	1	..	..	1	..	1	..	..	..	..	..	..	..	1	1	..	..	..	..	1	..	1	..	..
" " bladder	3	4	..	12	13	3	2	1	3	1	4	..	2	..	..	1	1	..	2	..	1	1	..	..	2	1	..	1	1	4	..
" " prostate gland	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stone in bladder	..	..	..	..	2	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Uræmia	..	..	..	1	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	10	7	3	57	38	14	4	8	4	4	5	2	10	8	3	8	1	1	4	3	3	4	2	2	3	4	2	3	3	14	1

TABLE V.—*Classified Mortality for the year* 1861—Continued.
Division 2. *Showing Location, Colour, Nativity, and Wards.*

DISEASES.	ALMSHOUSE.	PEOPLE OF COLOUR.	COUNTRY.	NATIVITY.			WARDS.																								UNKNOWN WARDS.
				United States.	Foreign.	Unknown.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
CLASS VIII.—DISEASES OF THE ORGANS OF GENERATION.																															
Cancer of the uterus	1	2	..	17	12	1	2	1	2	1	1	1	3	1	..	1	1	2	2	2	2	..	1	..	1	3	..	..	1	2	..
Disease of the ovaries	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
" " uterus	..	..	..	2	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Dropsy of the ovaries	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Hemorrhage of the uterus	..	1	..	6	7	..	1	..	..	..	1	1	1	1	..	..	1	..	..	1	1	..	..	..	..	2	2	..	1	..	..
Inflammation " "	..	..	1	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	1	..	..	..
" " ovaries	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Puerperal fever	..	..	1	7	5	3	2	1	..	..	..	1	1	..	..	..	..	..	..	1	..	2	..	1	3	..	1	..	..	..	1
" convulsions	2	2	..	15	8	2	1	2	1	..	..	..	3	..	1	2	..	..	1	1	2	..	..	2	3	1	..	2	..	3	..
Rupture of uterus	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	3	5	2	53	36	6	6	6	3	1	2	3	8	2	2	4	2	2	4	5	6	4	1	3	7	7	4	3	2	5	1
CLASS IX.—DISEASES OF THE ORGANS OF LOCOMOTION.																															
Caries	..	..	..	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
" of the spine	..	..	..	3	..	..	..	..	..	1	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Concussion of the spine	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Coxalgia	..	..	..	4	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	1	..	2	..
Disease of the pelvis	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
" " spine	1	2	..	8	2	1	..	2	..	1	..	..	2	..	..	..	..	..	..	..	1	1	..	1	..	..	1	..	2	..	..
Effusion on spinal marrow	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fracture of spine	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Inflammation of the spine	..	1	..	6	2	..	..	2	..	..	..	1	..	1	..	1	..	1	1	..	..	..	..	..	..	..	..	..	1	..	..
Rheumatism	2	1	4	18	3	1	2	1	..	..	..	..	..	..	1	1	2	2	1	..	2	..	..	..	3	..	..	1	..	3	..
Total	3	4	4	43	10	3	2	5	1	2	1	1	3	2	1	3	2	3	3	..	4	1	1	1	4	..	1	2	3	5	1
CLASS X.—DISEASES OF THE INTEGUMENTARY SYSTEM.																															
Cancer of the skin	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eczema	..	..	..	2	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Pemphigus	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Purpura	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Rupia	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
Total	..	..	..	5	1	..	..	1	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	1	..	..	1	..	..

TABLE V.—*Classified Mortality for the year* 1861—Concluded.

Division 2. *Showing Location, Colour, Nativity, and Wards.*

DISEASES.	ALMSHOUSE.	PEOPLE OF COLOUR.	COUNTRY.	NATIVITY.			WARDS.																						UNKNOWN WARDS.
				United States.	Foreign.	Unknown.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	33	24	
CLASS XI.—OLD AGE	2	13	6	95	97	11	10	11	10	12	8	4	8	13	12	7	6	7	6	8	8	5	2	15	10	8	2	3	9	9	4
CLASS XII.—EXTERNAL CAUSES.																															
Asphyxia	1	..	..	47	..	..	6	5	1	2	3	1	4	2	1	1	1	..	..	3	2	1	1	2	2	2	1	1	2	3	..
Burns and scalds	..	1	3	70	10	1	2	4	3	10	2	3	4	7	1	..	1	2	4	1	4	4	3	2	8	2	1	3	4	3	..
Casualties	1	2	4	70	46	6	8	11	2	3	3	3	8	3	1	2	4	4	1	4	9	2	4	1	11	13	4	2	6	5	4
Drowned	..	1	5	45	30	21	6	3	3	6	1	4	2	6	2	4	3	1	1	..	4	1	2	3	6	..	5	1	1	2	27
Debauch	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
Exposure and want	2	..	..	1	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1
Fracture	1	1	..	13	6	3	1	1	1	1	..	..	1	1	..	..	1	..	1	1	2	..	..	1	2	2	..	1	..	3	2
Intemperance	..	1	..	3	10	16	2	1	..	4	1	..	..	..	..	..	1	..	..	..	2	..	1	..	1	..	..	1	..	..	15
Neglect	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Poisoning	..	..	..	4	3	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	1	..	2	..	1	..	..	..	..	1	..
Suicide	..	..	..	12	13	6	1	1	..	..	1	..	1	..	4	1	2	..	1	..	3	1	1	..	1	2	1	1	3	2	4
Suspension by the neck	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
Strangulation	..	..	..	2	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Suffocation	..	..	..	5	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	1	..
Violence	..	1	1	4	6	3	1	1	..	2	..	..	1	..	..	..	2	1	..	..	..	..	..	..	..	..	1	1	..	..	2
Wounds	..	..	1	..	3	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	1
" gunshot	..	..	6	15	3	3	2	2	..	..	..	..	1	1	..	..	1	..	..	1	1	..	..	..	2	..	..	1	2	1	..
Total	5	7	20	293	130	67	30	30	30	28	11	11	22	21	10	9	18	8	8	10	30	10	14	9	36	21	14	12	18	24	56
CLASS XIII.—UNKNOWN	26	6	5	60	13	31	2	4	1	2	3	2	6	5	2	2	2	1	2	..	2	2	7	1	8	2	3	..	5	31	4
CLASS XIV.—STILLBORN	..	39	3	629	..	1	45	23	22	28	24	19	43	16	18	17	33	23	15	13	43	29	30	20	49	30	4	8	7	14	54

SUMMARY OF THE TRANSACTIONS

OF THE

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

FROM MAY 5, TO DECEMBER 3, 1862, INCLUSIVE.

1861. *Sept.* 4.* *Intra-uterine Hydrocephalus; Breech Presentation; Craniotomy; Recovery of Mother.*—Dr. CORSE related the following case.

Hydrocephalus, occurring during intra-uterine life, is generally of much less interest than when it occurs after birth. It is almost, if indeed not always, dependent upon some malformation of the cranial contents, which would properly place it within the sphere of teratology. Such occurrences are exceedingly rare. Their chief interest is to the obstetrician, as they very generally dangerously complicate labour, and render the operation of craniotomy necessary. This is the case when in labour some part of the head presents, but the difficulty and danger are increased if the breech comes down, as in the present instance.

Mrs. S. J., after having given birth to two fine perfectly formed children, who are now living and healthy, was taken in labour with her third child on Thursday morning, about 5 o'clock. The attending physician was sent for, and arrived about 9 A. M. The symptoms not being urgent, he left her and returned several times through the day. About 5 P. M. the body of the infant was delivered, but the head was retained in spite of his efforts to deliver it. The real nature of the case was as yet unknown, and the cause of the delay was supposed to be absence of uterine contractions. About 8 o'clock P. M. a neighbouring physician was called, who attempted the use of forceps. After fruitless efforts a third was sent for, who, upon examination, proposed that I should be joined to the consultation.

Much time had elapsed in sending messages to and fro, and it was 4 o'clock next morning before I got the message. I was soon by the patient, and found the child was in the fifth position of the breech. Extension had taken place, and the chin was resting on the brim of the pelvis, at the right acetabulum. I succeeded in bringing it down and rotating the head so as to bring the occiput to the acetabulum position. The long forceps were then applied, and during this process it was discovered that the head was of enormous size. Efforts were made to diminish it by compression; but, this being impossible, craniotomy was agreed upon. The head being above the superior strait, the shoulders of the child completely occupied the maternal passage, and presented an obstacle to operating; it was then determined to remove the body by amputation at the neck. The head being firmly secured in the blades of the forceps, and held by an assistant, the neck was severed. Sufficient space was now allowed. The operation consisted in making an opening through the soft parts under the chin, and through

* This case was unavoidably omitted in the last number of Transactions of the College.

the basilar process of the occipital bone into the cavity of the cranium; by this means a considerable part of the contents of the cranium were removed. Compression at this time by means of the forceps caused the cranium to collapse, and moderate traction delivered the head. The after-birth was removed by manual aid.

The patient had become exceedingly depressed, partly by the unfavourable prognostications of her numerous female friends, and partly by the long continuance of the labour. She soon, however, reacted, and got well almost without an unpleasant symptom.

1862. *May* 7. Dr. HUNT reported the following

Remarkable Case of the Co-existence of Tetanus and Paralysis.—R. C., a boy aged 16, was admitted into the Episcopal Hospital on the 12th of April, 1862. He had been injured in a rope factory by a machine which I personally inspected afterwards. It is a large wheel, some twelve feet in diameter, and eighteen inches broad at the circumference. The outer surface is studded very thickly with polished iron spikes, three and a half inches long, very sharp at the points, and about one-fourth of an inch thick at the base. In fact it is an immense circular comb, revolved by steam, and used for the purpose of disentangling and layering hemp.

While revolving, the machine requires a man and an adept to attend it; but in this case the proper personage was temporarily absent, and the boy, full of ambition, undertook the duty. He was caught, and after being torn by the points of the spikes, was fairly impaled by three of them entering his cranium. Luckily, some one near threw off the belt, and the wheel stopped, but so firmly was the boy fixed, that it took two men, one to support the body and the other to insert his fingers between the spikes, to draw him off. The person who acted in the latter capacity told me that the boy was perfectly conscious; did not think he was much hurt, and wished to walk home or to the hospital. His condition on admission was as follows: There were some eight or ten large lacerated wounds of the back of the *right* hand and arm, the integument being thrown off in flaps, exposing the tendons, muscles, and superficial vessels and nerves. These wounds reached as high as the elbow, and the distances between them corresponded with the rows of spikes. There was no fracture of the bones of the arm or laceration of the muscles. The next point of injury was the left malar bone, which was fractured by one of the spikes, and then the frontal and parietal bones appear to have been pierced. There were three punctured fractures of the *left* side of the cranium, two through the frontal bone and one through the parietal. One of the former was at the frontal protuberance, the other was an inch and a quarter from the first, and just within the temporal ridge. The puncture of the parietal bone was on a line half way between the other two, and a little more than an inch posterior to the coronal suture. We thus have a tripod of spikes indicated, upon which the boy was impaled.

There were no brain symptoms whatever at the time of admission. The reflected flaps of integument on the arm were returned and secured by sutures, and water dressings were applied to the head and face. This was on a Saturday. The boy did perfectly well until Monday, when there were intervals of delirium; but most of the time he was rational, although quiet and indisposed to talk. He continued thus until Wednesday, when hemiplegia of the *right* side came on. On Thursday the patient was reported to me as very much worse. I found him unable to speak; when he made

the attempt, he did nothing but mutter. He was, however, conscious, when aroused, his eye having an intelligent expression, not according with his inability to speak. On trying to open the mouth to protrude the tongue, I found that he could not use his jaws properly, and was not able to separate them more than half an inch. The inability was greater upon the *left* side than upon the right, the paralysis of which continued unchanged.

So preoccupied was my mind with the idea of compression that tetanus did not immediately occur to me. A consultation was ordered at 4 o'clock Thursday afternoon. On my way home, in thinking of the anomalies of the case, the question arose, "Has this boy tetanus and paralysis together, and is one condition influencing the other?" Drs. Kenderdine and R. P. Thomas met in consultation at the time proposed, when my suspicions were fully confirmed. Well marked trismus, the very characteristic risus sardonicus, and hard abdominal muscles, showed unmistakably the invasion of tetanus. At the same time the paralysis of the right side continued, and although perfect as to the arm, the patient once in a while moved the right leg, but apparently had no voluntary power over it. The rectum and bladder were also paralyzed, and from this time until the termination of the case, the feces and urine were discharged involuntarily. It was concluded not to trephine. The sutures were removed from the arm wounds, and warm water dressings applied. The patient was also given chloroform gtt. xx, fluid ext. of conium gtt. x, every two hours. Under this treatment he became much more quiet. On Friday the tetanus was most thoroughly confirmed, by a remarkable combination of empros and pleurosthotonos, that is, while there was a forward bending, the body at the same time was arched towards the left, as though the paralyzed side had no power of resistance. Throughout Saturday the symptoms continued unchanged, but on Sunday the boy became entirely unconscious, and died on Monday morning, on the 10th day from the injury.

Post-mortem.—The three punctured fractures of the cranium—at the points before indicated—were as clean on the external surface of the bone as though made by a sharp cutting punch. No fissures radiated from them. Small rough fragments of the internal table projected inwards from the margins of the holes, at which they maintained their connection with the sound bone. One of these was at least a half inch in length, and was connected with the fracture of the frontal protuberance. The membranes and brain were lacerated at points corresponding with the fractures. The right anterior lobe was the seat of a large abscess, and this lobe was more lacerated than the middle one. There was no particular congestion or inflammation of the base and medulla. The spinal cord was not examined. The wounds of the arm appeared to be in good condition. An abscess had formed about the left knee joint. The other parts of the body were perfectly normal.

Remarks.—Had the tetanus here a peripheral or central origin? In "Curling on Tetanus," I find a table of 128 cases, of which 110 had the original wound on some part of the extremities, and 69 of these either in the hands or feet; 5 only had wounds of the head. The lacerated wounds of the arm in my case were of the very kinds that are supposed to be more fruitful of tetanus than others.

Did the two conditions of tetanus and paralysis have any influence on each other? Was there a cross action here of any kind? I find two cases which may be considered as having some bearing on these points. One in Curling: "A boy received two shots in the spine; immediate paralysis

of the parts below followed. In seven days tetanus came on in the form of opisthotonos. Laudanum was given, in drachm doses, every half hour during the night; and the next day, caustic potash was applied along the whole length of the spine. There was a mitigation of the paroxysms; the patient slept and awoke free from the tetanic symptoms, but the paralysis of the lower extremities and of the bladder remained. Sensation remained perfect."

In the case just reported both sensation and motion were affected.

In "Longmore on Gunshot Wounds," a case is spoken of thus: "M. Baudens extracted, with an elevator supplied with a canula, a ball which had lodged in the eleventh dorsal vertebra, and was causing compression and complete paraplegia. The paralysis disappeared immediately after the extraction of the bullet, but tetanus came on four days afterwards, and proved speedily fatal." In both these cases there was direct injury to the spine, and there must have been much more laceration of tissue than was made through the integuments of the scalp in my case. In fact the scalp can scarcely be said to have been lacerated, but rather perforated by the polished spikes.

With the case before us, we have then three cases in which paralysis and tetanus coexisted. Doubtless there are others, but I have not been able to find them.

Why, when the intelligence of this patient was good, was he unable to speak, but could only give utterance to moaning and guttural sounds? His tongue was not paralyzed. There was nothing the matter with the base of the brain. The hearing and sight appeared to be good; there was no strabismus. Patients with trismus—at least all I have seen—can speak, although low, yet perfectly distinct. Is the explanation to be found in the cerebral wounds interfering with the will and intellect? It was not owing to a stupefied condition that the patient did not speak, for it was two days before coma came on that he lost the power of articulating, and made his wants known by motions with his left hand and by his eyes.

Surgically, the case is of great interest. Should we have trephined this boy over the three fractures? Does not the post-mortem show that we should, in all probability, have added one more case to the long list which has almost abolished the trephine from the surgical armamentarium? The calvaria has been preserved, and is a rare specimen of punctured fracture, with depression of the internal table.[1]

Nov. 5. *Colloid Cancer of the Omentum, Mesentery, &c.; Scirrhus of the Stomach and Uterus; Colloid of the Ovaries.*—Dr. Levick exhibited a specimen of cancer, and made the following remarks respecting it: Mrs. ——, a lady aged 59, had carefully nursed her husband through a long and fatal illness. During this time, which extended over a period of four years, her health had been good for the most part, excepting some little discomfort after eating, which was attributed to dyspepsia. There was also at the same time a tendency to constipation of the bowels. To relieve these symptoms she took small doses of blue mass, but without any appreciable benefit. These symptoms gradually increased, but she was able to attend to her domestic duties, and to go out daily until the early part of August, 1862, when Dr. Levick was first called to see her. He found her in bed, suffering from pain in the abdomen, obstinate constipation, nausea and vomiting, the stomach rejecting almost everything taken into

[1] The specimen was exhibited.

it. Careful inspection revealed the existence of a hard tumour in the epigastrium, extending toward the right hypochondrium. The abdomen was prominent and very tympanitic. The patient was somewhat relieved by the use of a turpentine enema, and the subsequent use of anodynes. The relief was but temporary, and the constipation and vomiting increased to a most distressing degree, large quantities of a dark coffee-grounds substance being thrown up toward the last of her illness. For more than a fortnight before her death she positively refused to take nourishment of any kind, and none passed her lips. In view of the epigastric tumour, and the symptoms before named, cancer of the stomach and intestines was at once diagnosticated. She died October 19, 1862.

The *autopsy* was made three days subsequently. *Exterior.* Emaciation extreme. *Abdomen.* On opening the abdomen a large quantity of serous fluid of a dark yellow colour escaped. As soon as this had all been removed, the abdominal viscera were found to be covered with a gelatinous substance, of the colour and consistence of calves-foot jelly, or in some places a few shades darker, like gum copal. The omentum, as may be seen, is entirely converted into, or replaced by this jelly-like material; it is in many places more than half an inch thick, and is heavy; the locular or honey-comb structure containing the gelatinous ingredient is beautifully apparent. The mesentery, the inner wall of the abdomen, the under surface of the diaphragm, and the peritoneal coat of the bowels, were all covered with the same deposit. The same was the case with the peritoneal covering of the liver, the spleen, and the kidneys; but what is interesting to note, in none of these viscera had the colloid cancer invaded the parenchymatous structure. The liver was in the contracted stage of cirrhosis, but entirely free from cancerous deposit. The spleen is of the usual size, and, excepting its peritoneal covering, unaffected. So too with the kidneys, which, though buried as it were in the soft gelatinous matter, were entirely healthy in their structure. The stomach, as may be seen, is greatly thickened, is hard, and the pylorus the seat of scirrhous deposit. The uterus and its appendages present some points of interest. The ovaries are the seat of colloid cancer, while in the fundus and body of the uterus are two or three tumours, hard, and evidently of the scirrhous form of cancer. The intestines were contracted to the size, in some places, of a goose-quill. The specimen was removed from the body a fortnight since, and by maceration in alcohol has lost its yellow colour.

The thoracic viscera were entirely healthy. Dr. L. remarked that the specimen before the college was especially interesting to him from the fact that the two forms of cancer, scirrhus and colloid, were found associated as they were in this instance, thus establishing the close relationship which exists between them, an identity which had been questioned by some writers on colloid cancer. Especially was this shown in the appearances presented by the uterus and ovaries: the former, as had been already noticed, being the seat of scirrhous tumours; while the latter was exclusively that of colloid cancer.

Cases of Stone in the Bladder. By Dr. Gilbert.—The following cases of calculus vesicæ, in which removal was effected by operation, are respectfully submitted to the college. They embrace all the cases operated upon by the writer, and are interesting mainly in view of the advanced age of the patients:—

Case 1. Amy, a coloured woman, aged sixty-five years. Operation was

performed by section of the urethra, in 1851, at Gettysburg, Pa., assisted by H. S. Huber, M. D. The stone was large, and had to be broken into fragments before its extraction. These together weighed two ounces, and proved to be of the triple phosphate variety. The patient recovered, and lived until 1854, entirely free from symptoms of calculus.

Case 2. Mrs. S. G., of Brown Street, Philadelphia, aged seventy-one years. The operation was performed in the same manner, on March 1, 1854, assisted by Drs. Bird, W. K. Gilbert, and Messrs. (now doctors) North and Barker. A light coloured lithic acid calculus, weighing six drachms, was extracted. The patient recovered.

Case 3. Mr. ——, aged fifty-one years, of Martinsburg, Bedford County, Pa. The usual lateral operation was performed, in which I was assisted by Drs. Getty and Bloom, of the same place, in June, 1853. Fragments of phosphatic calculi, weighing two and a half drachms, were removed. This broken condition of the stone was the result of a previous attempt, by another surgeon, to remove it by the operation of crushing. The patient recovered.

Case 4. Mr. ——, aged fifty-two years, presented himself at the clinic of the Pennsylvania College, in November, 1853, with symptoms of stone. Being unwilling to submit to the operation by incision, the stone was crushed at several sittings, and large quantities of phosphatic calculus were removed. The bladder became so irritable, however, that the patient refused all further efforts, and left the college before the organ was entirely relieved of its irritating contents. I heard several years subsequently that his sufferings were greatly diminished, so that he did not desire any further operative procedures.

Case 5. I. McC., Esq., aged seventy-eight years, of Christian Street, in this city, requested me to visit him, in August, 1861. I found him suffering severely from symptoms of stone. A sound was introduced, which immediately enabled me to declare the existence of calculus. The lateral operation was performed in the ordinary manner, on the 28th of the same month, in which I was assisted by Drs. J. H. B. McClellan, R. Levis, A. H. Fish, and W. K. Gilbert. Two calculi, weighing 90 and 100 grains respectively, were removed. These were principally phosphatic, formed around nuclei of dark uric acid calculi, which were exposed in each by friction of the surfaces in contact. This patient was unusually corpulent, being of middling stature, yet weighing two hundred and forty pounds. The perineum consequently was unusually deep. Discharged cured October 11th, and is now living.

Case 6. Was called to L. F. S., Esq., of Keyport, Monmouth County, New Jersey. This patient, aged eighty-one years and two and a half months, had had symptoms of irritation of the bladder for a number of years, which were borne with but slight inconvenience. On the 9th of August last he rode in a wagon without springs to his farm, six miles from his place of residence. The violent jolting over a rough road gave rise, suddenly, to the most excruciating pains in the region of the bladder. His physician, Dr. B. H. Porter, was called, and, suspecting stone, sounded him, and found his diagnosis correct. I was requested to visit the patient and perform the operation, which was done on the 13th day of August, assisted by Drs. Porter, Dayton, Shackelton, and Croft. The lateral incision having been made, the stone was grasped; but owing to its large size, the right lobe of the prostate gland had to be incised also before it could be extracted. The stone is of the fawn-coloured lithic acid variety, oval in

form, surface studded with large tubercular elevations, and weighs seventeen drachms and two scruples. One side of this stone was evidently attached to the bladder, and became detached during the ride on the 9th in the rough wagon.

The patient bore the operation well; the loss of blood did not exceed four ounces; and he expressed himself quite comfortable, until the urine began to flow through the wound.

Dr. B. H. Porter took charge of the patient, and directed the after treatment. His almost daily reports for the first twenty days were so favourable that there was every reason to believe that recovery was certain. At this stage of the case, however, Dr. Porter became indisposed, and the patient was without any medical attendant, until Dr. Dayton, of Middletown Point, was sent for. A very decided change, of an unfavourable character, had occurred, and the patient gradually became more feeble, and expired on the thirtieth day after the operation. A son of the deceased, who is a clergyman in the Dutch Reformed Church, gave me the following statement incidentally in a letter, written four weeks after his father's decease:—

"He appeared to be doing well until the latter part of the third week after the operation. His appetite was good, and he was at times cheerful. His bowels continued obstinately costive, and Dr. Porter commenced administering small doses of senna every hour, without effect. When Dr. Dayton was called in, he prescribed a wineglass of salts and senna every two or three hours, until it operated. This commenced next day, and became excessive, so that we had difficulty in arresting it, and did not finally until about noon next day. From this time he lost all appetite and began to sink, and so continued gradually until the closing scene, four days afterwards."

From the reported condition of this patient for the first three weeks after the operation it is fair to say that it was successful, so far as the operation is concerned. In all the male cases here reported, chloroform and ether, mixed in proportions adapted to the strength of the patients, were used to full anæsthesia. In none of the cases was there any arterial bleeding, except a trifling amount from the transverse perineal artery, which, with the venous, in no case exceeded four ounces.

It may be observed that the two latter cases rank very high amongst the extreme in age of all reported cases of lithotomy. Chief Justice Marshall, operated for by Dr. Physick, has been considered the most aged person successfully operated on in this country. By reference to the memoir of Dr. Physick, by Dr. Randolph, it appears that Judge Marshall was seventy-six years old when the operation was performed, whereas the ages of the subjects of the last two cases here reported were seventy-eight years and eighty-one years and two and a half months respectively.

Dec. 3. Hypodermic Injections of Sulphate of Morphia used daily for five months, twice daily for three months, and three times daily for six weeks, with great relief to the patient, and with no unpleasant sequelæ.— Dr. LEVICK remarked that the Fellows of the College were doubtless familiar with the very interesting paper of Mr. George Hunter, of St. George's Hospital, London, published in the *Medical Times and Gazette* of September 10, 1859,[1] in which he had called the attention of the profession to

[1] See number of this Journal for Jan. 1860, pp. 238–242.

a somewhat novel mode of treatment—that of injecting medicated solutions into the subcutaneous tissue, the *hypodermic* or *subcutaneous injection*, as it is called. Allusion had previously been made to this subject by Dr. Alexander Wood, but Mr. Hunter had gone elaborately into the subject, and given us a paper detailing the results of various cases, in which the subcutaneous injection of the solution of acetate of morphia was resorted to with great relief to the patients. He does not limit its application to the alleviation of local pain, but reports cases of *delirium tremens*, *mania*, *puerperal mania*, *wakefulness*, *chorea*, *tetanus*, and *sciatica*, all of which were more or less benefited by its use. Since his paper was published others of a similar character have been issued, confirmatory of his statement; and very recently it has even been proposed to resort to the subcutaneous injection of solution of quinia in the treatment of dangerous forms of miasmatic fever. Influenced by the statements before referred to, Dr. L., two years ago, had recourse to the hypodermic injection of solution of morphia (Magendie's solution) in several obstinate cases of neuralgia, while on duty in the Pennsylvania Hospital, the result of which was a temporary, and, in some instances, a permanent relief to the patients. The only inconvenience experienced in any of these cases was the occasional occurrence of severe nausea, which, with the formation of abscesses in the cellular tissue, is alluded to by Hunter as sometimes following the injection. The first of these inconveniences, as he justly remarks, cannot be urged as a reason for its relinquishment, as the same result will often follow the administration of opium by the mouth. In these instances, as in that which follows, the instrument used was made in this city. It is of gutta percha, its maximum capacity twenty-eight minims. It has a fine, silver tube about two inches long, terminating in a pen-like point, so fashioned as to readily penetrate the skin. To use it, the skin is pinched up, the point of the tube is cautiously introduced, just far enough to prevent any loss of the fluid, the liquid thrown into the tissue, and the instrument carefully withdrawn. The part immediately becomes white and puckered, but the operation, if properly performed, is an almost painless one.

Dr. Levick now begged leave to call the attention of the College to a case lately under his medical care, in which, after the usual modes of treatment had signally failed, the hypodermic use of the solution of morphia had been resorted to for the relief of intense pain, apparently of a neuralgic character, to the great temporary relief of the patient, and in which this mode of medication had been resorted to daily for five months.

The leading incidents of the case were as follows: —— —— a highly intelligent gentleman, well known to many Fellows of the College, had three years before suffered from an attack of myelitis, with paralysis of the lower extremities, referred to injuries received by a fall. From this illness he had recovered to such an extent as to resume his usual engagements, walking to and from his place of business without difficulty.

In the early part of December, 1861, he began to experience sharp, shooting pains near the hip, following the course of the sciatic nerve, and extending to the calf of the leg. These pains, which at first were slight, gradually increased in severity, and after a few days Dr. L. was for the first time called on to visit him. The phenomena presented were those of intense neuralgia, with the usual absence of fever or other constitutional disturbance. The previous history of the patient was such as to induce the suspicion that there might be organic disease at the root of the nerve, but at this time and later careful investigation failed to detect this, the possible

existence of which was, however, never lost sight of in the subsequent treatment of the case. The pill of carbonate of iron, with small doses of extract of belladonna, and extract of nux vomica, were prescribed and taken for a fortnight or more without any benefit. As the attacks were somewhat paroxysmal, sulphate of quinia, in full, anti-periodic doses, was next resorted to, but with no appreciable advantage. In fact, from this time until the early part of January, 1862, there was a steady increase of the patient's sufferings. Dr. L. remarked that in the whole course of his practice he had never witnessed such long-continued suffering. The pain had lost much of its paroxysmal character; its intensity was such as to prevent sleep, so that the patient spent most of his nights in his chair. This loss of sleep and protracted pain had seriously affected his general health; he had lost flesh, and his nervous system had become so enfeebled that he was unable to attend to business; even the effort to write his name, or the slightest mental exertion, was attended with an increase of suffering. Up to this time he had used successively various narcotic and other remedies. The extract of belladonna, by pill and by suppository, the external and internal use of aconite, extract of hyoscyamus, morphia in large and repeated doses by the mouth, laudanum enemata (70 drops), and the sulphate of morphia in grain doses endermically, had each been tried, but unavailingly, as the discouraged patient himself said, "with little more effect than so much water." After this Dr. L. determined to try the subcutaneous injection, and with this view introduced fifteen minims of the solution of sulphate of morphia (Magendie's solution gr. xvj to f℥j) into the tissue of the affected thigh. The relief afforded was prompt and decided, and the patient, for the first time for several weeks, passed a comfortable night. The pain, however, recurred next morning, and continued during the day; the injection was repeated next night, and with the same good effect. In this way it was repeated night after night, the dose gradually increased until it reached the capacity of the syringe, twenty-eight minims. Dr. L. remarked that the temporary relief thus afforded was almost magical. Frequently on his evening visit he would find his patient in an agony of suffering, and five minutes after giving the injection, would leave him composed quietly for the night.

During this time measures for the permanent relief of the patient were not neglected. In the early part of February, the injection was given twice daily, the second dose about twenty minims at 1 o'clock P. M., and, not to weary the College by unnecessary details, after this all other modes of medication were abandoned and the hypodermic injection solely relied on. In the latter part of February, a third injection daily was given at about five o'clock in the morning, the effect of the evening's dose beginning to pass off by that time. Twenty minims were given at this time. To recapitulate, from the early part of January to the middle of June, the injection was used every night; from the early part of February to the same time in May, twice daily; and from the latter part of February to the middle of April, three times daily. During this time no unpleasant head symptoms occurred. On the contrary, a marked improvement of the nervous system was evident, and the patient gradually engaged in pursuits requiring increasing mental efforts. As this improvement took place, the early morning and the mid-day injections were gradually omitted, while that at night was continued as before. An attempt was several times made to inject in other parts of the body than the affected thigh, but this was not satisfactory to the patient, and with, perhaps, three or four exceptions, the injections were

all made in the right thigh. That this mode of medicating was not a very painful one, may be inferred from the fact that it was at the earnest solicitation of the patient himself that other modes were abandoned, and that the third daily injection was given him.

As the mild weather approached, the invalid went out daily to drive, spent some days in the country, and in June went to the seaside where, as his health improved, the remedy was entirely withdrawn. To do this was no easy matter. The relief afforded had been so great that the patient dreaded its abandonment, and this last was only effected by the cautious management of his devoted nurse, to whom its administration had for some months been intrusted. It was, however, successfully accomplished by the substitution of water, drop by drop, for the morphia solution. After a brief residence at the seaside, the patient returned to the city, gradually resumed his business engagements, and remained in good health during the summer and autumnal months. During the recent cold weather there had been some return of pain, but not such as to confine him to the house.

Dr. L. remarked, that it would be observed that in this case no claim was made for a radical cure, by the hypodermic injection, of the disorder under which this patient laboured. But what was of interest in the case, and what was claimed for this mode of treatment, was, *First.* That after other measures had signally failed, the subcutaneous injection afforded prompt, and, for a time, complete relief from pain. *Secondly.* That by the regular repetition of the injection the patient was made comfortable, refreshing sleep obtained, and in this way life was protracted until the weather had become such as to permit him to use those hygienic measures which resulted in the restoration of his health. *Thirdly.* That although the injection was used so frequently, and for such a long time, no unpleasant sequelæ resulted. There was no disturbance of the head, and no nausea; no abscesses of the cellular tissue formed; and although the points of insertion were so numerous that it was sometimes difficult to find a spot where the instrument had not already been introduced, yet all these healed readily, and there was now nothing left to indicate where the injections had been used.

Under these circumstances Dr. L. did not hesitate to recommend the hypodermic injection as a valuable addition to our modes of medication.

At a special meeting of the College, held on the day after the decease of Dr. Remington, the following preamble and resolutions, introduced by that gentleman, were unanimously adopted:—

Whereas, The Fellows of this College have heard with feelings of regret the death of their esteemed colleague, Dr. Isaac Remington, therefore,

Resolved, That while they mourn the loss of one who has been an ornament to his Profession, a worthy and consistent Fellow of this College, and of high moral worth in society, they bow with submission to the will of the Almighty.

Resolved, That the Fellows of the College tender to the widow and family of their late colleague, Dr. Isaac Remington, the expression of their sincere condolence in the deep bereavement they have sustained; and that as a mark of respect for his memory they will attend his funeral.

Resolved, That the Secretary furnish to the family of the deceased a copy of the above preamble and resolutions.

Resolved, That Dr. Littell be requested to prepare a necrological notice of our late Fellow, Dr. Isaac Remington, to be read before the College.

MEMOIR

OF

ISAAC REMINGTON, M.D.

READ BY DR. LITTELL BEFORE THE COLLEGE OF PHYSICIANS, DECEMBER 3, 1862.

THREE years have scarcely elapsed since I read by appointment of the College, a brief memoir of our late associate, Dr. Thomas H. Yardley. Dr. Remington very kindly interested himself in procuring for me some necessary information on that occasion. I now perform the same sad office for him.

The frequency of such occurrences, Mr. President—for several others of our number have fallen since that time—is a mournful admonition to pause a moment in our busy and absorbing career, to bring home to our own bosoms the transitoriness of earthly things, and to reflect on the inevitable change which awaits us all; the suddenness of the visitation in several instances, abundantly verifying the declaration of Holy Scripture, that, "At such an hour as ye think not, the SON of MAN cometh."

Isaac Remington, the second son of Clement and Sarah Remington, was born at Germantown, on the fifth day of January, 1804. While he was yet a child, his father, returning to the city, purchased, as a convenient situation for his business, a plot of ground on the northwest corner of Vine and Sixth Streets, at that time an open and unimproved Common. On a part of this lot, he erected, in the year 1813, two houses, "in accordance," as his son characteristically remarks, in a brief memoir which he has left of his parents, "with his own views and plans, consulting comfort and convenience, without any regard to useless ornament and display;" and in this immediate locality, residing at his marriage, first on one side, and afterwards on the other, of the paternal mansion, the whole of Dr. Remington's subsequent life was passed.

He had some fondness in early boyhood for agricultural pursuits, and actually spent several months in the country with the intention of qualifying himself for the occupation of a farmer; but this idea being relinquished, he returned to his home, and entered the school of Thomas Dugdale, a celebrated classical teacher of that day; under whose tuition he made great progress, especially in the study of Latin; acquiring also a competent knowledge of the Greek and German languages. Having completed his education there, he left the school with a high reputation for sobriety,

steadiness, and industry, and, after some time spent in the drug store of his future father-in-law, began the study of Medicine under the direction of the late Dr. Joseph Hartshorne; graduating with distinction at the University of Pennsylvania, in the year 1824. The subject of his Inaugural Thesis was Inflammation.

He entered at once upon the practice of his Profession, and married on the first of January, 1828, Lydia, daughter of John Hart, a well known and highly respectable druggist of this city; who bore him twelve children; nine of whom, with their mother and six grand-children, remain to mourn his loss, and cherish the bright example which he has bequeathed.

> "With secret course which no loud storms annoy,
> Flows the smooth current of domestic joy,"

and in the endearments of home, cheered by the society of the estimable partner of his life, and occupied in the training and education of his numerous family, years glided peacefully and imperceptibly away; though not uncheckered by the ills which are inseparable from existence, yet amid perhaps more of substantial comfort and happiness than ordinarily fall to our lot.

Dr. Remington was a person of decided and independent character, firm, positive, and resolute in whatever he thought right to do, yet of singular modesty and sobriety; retiring, diffident, undemonstrative, and unpretending in his disposition; carefully avoiding ostentation and parade, and everything likely to draw upon himself the attention of others; and seeking in the quiet discharge of duty the approbation of his own conscience, rather than the praise of men. He mingled little in general society, but lived in an unusual degree within himself; and this he did from no feeling of austerity, or moroseness, or of inability to cope with others—for being

> "Of manners gentle, of affections mild,
> In wit a man, simplicity a child,"

he was well-fitted to bear his part with dignity and propriety in any position in which he might be placed—but such a course was deliberately adopted, as well from choice, and as a means of moral discipline, as from a deep conviction of the vanity and unsatisfying nature of mere worldly pursuits and pleasures. The description which he gives of his father, for whom he had great filial regard and veneration, and in whose company, even after his marriage, he was accustomed to spend much of his time, is quite as applicable to himself—"He sought to pass through life with reputation and honor, content to enjoy a moderate portion of this world's treasure in quiet simplicity, under a sense of dependence on a gracious Providence for all his blessings." He was remarkably observant of order, regularity, and system; and this trait, which was strikingly displayed in his modes of thought, and in all the affairs of life, he appears to have inherited in no small degree from his mother, whom he unhappily lost at an early age. The Abbe Metastasio is related to have pleasantly said of himself that he dreaded Hell, because it was a place, Ubi nullus ordo, sed sempiternus horror inhabitat; but even his regard for exactness and method, great as it is said to have been, could hardly have surpassed that of our friend. It was apparent alike in the great and the minute. The business of every day was carefully pre-arranged, every contingency anticipated, and everything done, as far as possible, in its appropriate time and place. Plain and frugal in all his ways, he inculcated economy less from necessity—for happily

he never felt in any very uncomfortable degree the res angustæ domi—than as a duty in itself, and also as a lesson to his children, whom he taught to avoid waste and extravagance, and to form early habits of thrift and industry. He was strict, yet rigidly just and conscientious in his dealings, complying scrupulously with his own obligations, and requiring others to do likewise. Sincere, reliable, and true, his word was to him a law from which he never swerved; and those among us who have had the pleasure of meeting him in consultation will remember the punctuality with which he always kept his appointments. Guided by principle rather than by policy, he was more solicitous to do what was right than what was expedient. He was honourable and blameless in all the relations of life; kind, humane, courteous, amiable, and obliging; ever prompt to do good to others, to lessen the amount of human suffering and sorrow, and to contribute all that was in his power to promote friendliness, harmony, and good-will among men.

Gratitude has been cynically defined to be a lively sense of favours to come, and there is unhappily too much truth in the definition; but that it was in his instance, an abiding recollection of kindness past, the following anecdote, illustrating his innate goodness of heart, will abundantly prove. During the first visitation of the Asiatic cholera in 1832, intelligence was brought to him from the country, that the father and mother of the family in which he resided where he made his first essay in farming, had just died of that disease, and were then lying unburied in the house; that several of the children were dangerously ill; and that those who were still untouched by the Destroyer were in the greatest helplessness and distress;—the panic-stricken neighbours being afraid to approach the house, or to render them any assistance. Without pausing a moment to reflect on the probable consequences to himself, he immediately flew to the rescue; procured a nurse for the sick, superintended the burial of the dead, and by his timely and heroic efforts was instrumental in saving the lives of several of the children. His opportune arrival was hailed with delight by the youthful sufferers, and especially by one of the daughters, who, conscious that she was dying, told him that it was too late to do anything for her, but besought him to hasten, while there was yet hope, to the relief of the others.

In the early period of his professional career, Dr. Remington was one of the co-editors of the Philadelphia Medical Recorder, a very respectable quarterly Periodical of that day; and discharged the duties which devolved upon him with ability and general acceptation. He was engaged also during several years with the same gentlemen, in a series of winter examinations of Students of the University; and subsequently, during the prevalence of the Epidemic Cholera, was connected with one of the hospitals temporarily established for the reception of those affected with that disease. He was a member of the Philadelphia Medical Society, and of its successor, the Philadelphia County Medical Society, of which he was chosen President for the year 1860; delivering on his retirement from the Chair a very pertinent and excellent Address, of which more particular mention will presently be made. He was also an active member of the Northern Medical Association, and read several interesting papers before that body. He took a lively interest moreover in the Northern Dispensary, and was during many years one of its consulting physicians. He was repeatedly sent as a delegate to the State Medical Society, and represented the Profession also at the first meeting of the American Medical Association held in this city; to which he would, no doubt, have been often re-elected, but that its meetings were generally held far from his home, and more imperative duties detained

him there. In the year 1850 he was elected a Fellow of the College of Physicians.

In all these reunions with his professional brethren, he bore a very creditable, and even a prominent part. His natural diffidence, and his unwillingness to obtrude himself on their attention unless he had something really interesting and valuable to communicate, prevented him from occupying the floor very frequently; but when he did so, he spoke with pertinency and clearness, and was always heard with deference and respect.

Infantile Convulsions, The History and Treatment of Puerperal Fever, Fractures of the Femur, and a Report on the Practice of Medicine for 1851, are titles of several papers read by him before the Northern Medical Association. Before the County Medical Society he read, in 1853, a monograph on the use and abuse of the Lancet; and as Chairman of the Committee to prepare a Report on the Meteorology and Epidemic Diseases of the City and County for 1854, submitted in April of the following year, a very elaborate document, which was adopted by the Society, sent as its contribution to the State Medical Society, and ordered for publication in the Transactions of that body. All these productions are marked by the practical good sense and discriminating judgment which he evinced in whatever he undertook; and are valuable as the recorded experience of a conscientious man and an observant practitioner.

With the exception of the paper last mentioned, they were not intended for the press, and a single quotation from the Essay on Venesection is, therefore, all that will be made on the present occasion; merely premising that, unseduced by modern refinements, his practice in the acute Phlegmasiæ was sufficiently vigorous to satisfy any requirement — the lancet being promptly and fearlessly employed, as the sheet-anchor of hope, whenever circumstances justified its use.

"The question has often been asked why physicians bleed less frequently than formerly, and, if the postulate be admitted, does the change operate favourably in the removal of disease and the preservation of life? This change in practice has been imputed to a variety of causes: to a change in the type of disease from a sthenic to an asthenic character, induced by the enervating influence which sedentary pursuits, a life of indolence and fashionable dissipation, exercise over the health, stamina, and morale of many residing in crowded cities.—evils inseparable from a highly civilized state of society; to a more intimate knowledge of the laws of organized life, and their relations and dependencies in a state of health and disease, as developed by the discoveries of *Organic Chemistry* and *Microscopic Anatomy*. It has been suggested that the visionary doctrines of *non-entities* and *homœopathic* speculations have had their share also in producing this change in practice. We hazard nothing in stating our honest conviction that many diseases are treated much more successfully now than they were half a century ago. Notwithstanding, Opprobria Medicorum abound at the present day; and *Phthisis*, *Cancer*, *Cholera*, *Smallpox*, and *Yellow Fever*, continue to carry off their victims in defiance of the enlarged and improved resources of the healing art. The vast accessions made to medical science by the accumulated experience and wisdom of centuries, have failed to produce the glorious results achieved by the cultivation of some of the other sciences. We have to regret the absence of fixed principles, established laws and rules, which might serve as unerring guides to penetrate the mysterious processes of an animal organism 'fearfully and wonderfully made;' and, after all, it is the practical application of sound

medical attainments and principles at the *bedside*, tested by careful and repeated observation, that forms the school in which the physician is to receive his instruction, and to become properly trained and qualified to minister to the relief of suffering humanity."

The Address just referred to as having been delivered on his retirement from the Presidency of the Philadelphia County Medical Society contains many useful precepts and reflections; and is well worthy of perusal as an eloquent exposition of the evils arising from the abuse of alcohol and tobacco, "twin demons of destruction," as he rightly terms them, and also as being, in the outline which he draws of professional character, duties, and qualifications, an unconscious and faithful transcript of the rules and principles which governed his own conduct.

He had a just sense of the dignity and value of his Profession, quoting with approbation the apothegm of Cicero—Homines ad Deos nulla re proprius accident quam salutem hominibus dando; and that he did not lightly estimate its requirements and responsibilities, is evident from the importance which he justly attaches to high mental endowments expanded and disciplined by a liberal and classical education, as preliminary to its study; as well as from the elevated standard of moral and professional attainment which he advocates.

"Indeed," he observes, "we are safe in declaring, that in order to master its intricacies and arrive at eminence, there is no occupation that demands more strength of mind, a higher degree of cultivation, or more varied talents for its successful prosecution. We have to treat with an organism of the most delicate structure and intricate mechanism, regulated by laws over which we can exercise but a limited control, and subject to changes and morbid alterations under the influence of causes operating from within and from without; but all requiring to be most carefully studied and investigated.

"The accomplished physician renders all nature tributary to his science; he observes the weather and change of season as successively developed in the revolving year; he calculates the effect of temperature, and its variations in dryness and humidity; he studies atmospherical changes and their varied combinations with miasmatic and pestiferous exhalations, in causing epidemics. From all which sources he derives valuable aid in supplying materials for the improvement of his art."

* * * * * * * *

"It is the physician's peculiar privilege to enter the abodes of sorrow, penury and disease; to be an eye-witness of the calm and quiet resignation with which his patient, prostrate on the sick and weary couch, contemplates his approaching end. The good physician having experienced the love of God shed abroad in his heart, and his spirit clothed with the mantle of peace, is enabled to impart its joyful and benign influences to the aching heart, and to pour out comfort and consolation in visions of unmingled bliss. He is also summoned, in the exercise of his art, to attend at the bedside of the rich, the wise, and the great; who when the last hour of change and trial arrives, are prepared through the visitations of Divine Grace to admit the emptiness and vanity of all earthly grandeur, honour, and enjoyments, and to confess their utter insufficiency to afford true peace and consolation at the closing scene."

Repelling as unfounded and unjust the imputation not unfrequently cast upon the Profession, of infidelity and skepticism, he goes on to remark: "One of the most convincing proofs of the Divine origin of man, is derived from the study and functions of the living body. The nice adaptation

and mutual dependence of its several parts; the beauty and harmony observed in its varied relations and systems; the wisdom and perfection of its design; must naturally impress the mind with a sense of wonder and delight, elevating it to the most sublime conceptions of the DEITY. Indeed, our earthly tabernacle bears the impress of the Divine Hand; and the more closely and minutely it is studied, the deeper will be the conviction that we are 'fearfully and wonderfully made.' "

The same lesson, he shows, is still more impressively inculcated by the consideration of the heavenly bodies—

"The mathematic glories of the skies."

"Such contemplations are useful and instructive; they fill the mind with a holy fear and reverence for the illimitable works of the CREATOR, inspire it with an approximate idea of the vast powers, the inscrutable wisdom, and the infinite beneficence of that Almighty BEING who said, 'Let there be light, and there was light, who stretcheth out the heavens like a curtain, who maketh the clouds His chariot, who walketh upon the wings of the wind, who laid the foundation of the earth that it should not be removed forever.'

"The profound study of, and familiar acquaintance with, the Natural Sciences, irresistibly lead the heart of man to the worship and adoration of the great FIRST CAUSE; and by their practical teachings and monitions incite to humility and abasedness; chasten and purify his thoughts, and enlighten his understanding."

Dr. Remington, as is apparent from what has been said, was a well read, thoughtful, and judicious physician. He loved his Profession, cultivated it with diligence, and strenuously defended it against the pretensions and encroachments of imposture and charlatanry, both within and without its pale. His cases were faithfully and systematically studied; and he carefully deduced from them the instruction they were adapted to convey. He had formed right conceptions of the nature of disease, and the legitimate province and power of art; his long and well-digested experience had taught him the therapeutic value of medicine; and he was accordingly more intent upon the proper application of agents with which he was familiar, than disposed to seek after new remedies, or rashly to run into novel and untried modes of practice. This was from no disinclination to avail himself of all the resources which the advance of Chemical and Medical Science has placed within our reach—for when rational in themselves, or recommended by competent authority, he gladly welcomed them to his aid—but because he felt the responsibility of his Profession, recognized the Vis Medicatrix as the great agent in restoring health, and had a more just appreciation than many others of the extent of the assistance which art can give. "The physician," he tells us, "should not be the *magister*, but the *minister* naturæ, the delegated guardian, the ministering angel in the hand of Providence to watch and regulate her movements; while by the skilful interposition of his art he enables nature to triumph over obstacles to the recovery of his patient. Hand in hand he should co-operate with her in the performance of the mighty work; never forgetting that it is she who acts; imitating and respecting her; frustrating and disturbing her never." This is sound advice; and had it been generally given and followed, the Profession would occupy a truer and more healthy position than it now does. His clear, logical, and discriminating mind, his correct views of pathology, and his accurate diagnosis, preserved him from the evils of a blind routine and mischievous empiricism; and, by limiting it to its appro-

priate sphere, made his practice, instead of being tentative and uncertain, at once rational and successful. He was unambitious of fame, though not regardless of the esteem of the wise and good; and would have despised the popularity which is often acquired at the expense of the Sick, and still more frequently by the sacrifice of dignity, honour, and integrity on the part of the practitioner—scarcely distinguishing him, indeed, except by his greater culpability, from the ignorant and reckless quack whom he denounces. That he was a benefactor to the poor, is so much a matter of course, that it hardly requires to be stated; for, to the praise of the Profession, it may truly be said, that more is contributed by its members for the relief of this class, than by all the rest of the community. Not only is time and attendance gratuitously and indefatigably given in Dispensaries, Hospitals, Infirmaries, Almshouses, and various other benevolent institutions, but a large proportion of the private business of every physician is made up of cases which are not merely unremunerative, but, apart from the services rendered, often involve him in actual pecuniary expenditure. That Dr. Remington was no exception to the general custom, was known to all his friends, and is not left to be inferred, as it well might be, either from his acknowledged goodness of heart, or the precepts which he lays down for the guidance of others. "The relief of the poor," he says in his Address, "has always been a prominent object with the humane, conscientious physician, who, actuated by motives of benevolence, is ever ready to respond to their calls. Kindness and gentleness will ever mark the performance of these duties.

"The poor man, languishing, disheartened, and deprived of all resources, has strong claims upon our sympathies; and the medical officers of public and private Charities should never undervalue his time, nor disregard his sufferings by a neglect of duty, or by a want of punctuality in his visits."

What he thus taught in theory, he exemplified in practice. He cheerfully responded to every summons of individual distress, was always forward to promote every measure of general good, and would have fervently joined in the touching aspiration of Dr. Armstrong:—

> "Obscurely let me live and die,
> But not unknown, unhonoured lie;
> O may the poor and wretched trace
> My grave in some sequestered place,
> Where streams their solemn requiem sound,
> And nature breathes in beauty round;
> There ardent may their wishes rise,
> Like incense offered to the skies."

No sketch of Dr. Remington's life would be complete without some notice of his religious character. It was through this that he bore no doubtful testimony while living, and by this "being dead, he yet speaketh." Enough has already been said to show that his conduct was governed by Christian principles, and that he was cheered through life by the hopes and promises of the Gospel. In his more particular profession he was a humble, devout, and consistent member of the Society of Friends, and of the orthodox division of that body. Sincere and firm in his attachment to the tenets of the sect to which he belonged, his opinions were nevertheless held without bigotry, or intolerance towards those who differed from him. Such feelings he would have rightly thought contrary to the very essence of Christianity; and they certainly had no place in his own meek and gentle bosom. He did not expect universal agreement among men, but he did look for sincerity of faith as manifested in the life, and graduated his

respect accordingly. The earlier controversies which divided his Denomination had nearly subsided when he began to take an intelligent interest in such matters, and had it been otherwise, his disposition would have rendered him averse from polemical disputation; but he was nevertheless firmly established in his own views, and the bias of his mind inclining him to cling tenaciously to the principles of Friends as taught by their founder, he regarded with especial dislike and suspicion all innovations; as, in his judgment, detracting from that witness for which so much had been sacrificed and suffered, and approximating too closely in form and ceremony to the Church which they had abandoned. Death and Eternity were familiar subjects of his meditation, and more particularly so, as they were brought nearer to him. He lived in habitual preparation for another and more enduring state of existence, and having finished the work allotted to him here, entered into life with a calm and confiding hope of a blissful immortality. Though removed from the scene of his probation in the full maturity of his powers, and when his ripened experience gave promise of greater and still further usefulness to mankind, he has not been like those who have left no memorial. Wisdom, we are told, is gray hairs to man, and an unspotted life is old age. It was this, that irradiating the dark valley, divested the grave of its terrors; and in the contemplation of the internal tranquillity and resignation which he manifested during his illness, and the peace and serenity which marked its close, we may well take up the language of the erring Prophet, and exclaim, "Let me die the death of the righteous, and let my last end be like his!"

The following extracts from his Address, in which, while counselling others, he lays bare the workings of his own mind, will show better than anything which we can say, the genial and Christian spirit with which he was animated:—

"Let us ever cherish most assiduously that love which is forbearing, obliging, not envious, arrogant, or proud, not rude, or selfish, irritable, or defamatory. It has pleasure in truth, but not in falsehood. It is content with all, confides in all, trusts to all, bears with all. The highest rank, the greatest skill, the most exalted merit, the profoundest erudition, are without this, nothing; the highest attainments in literature and science without it are vain as the tinkling cymbal." * * * *

"Fixing our eye steadily on the source and fountain of infinite purity and holiness, let us implore the Divine guidance and direction, considering always our many imperfections and short-comings." * * *

"Let us labour unceasingly to subdue pride of opinion, arrogance, selfishness, and vain glory; first endeavouring so to regulate our own thoughts and conduct as to impart to the Profession a character derived solely from individual worth and excellence; we shall then be enabled to exercise greater influence among our associates in establishing good fellowship and virtuous principles." * * * * *

"That Divine law, 'Do unto others as ye would that they should do to you,' forms the basis of all sound ethics, and should be held in constant remembrance, and be practised on all occasions. Much will be gained by cultivating a kind, courteous, affable demeanour throughout our varied intercourse; and even under the most trying and adverse circumstances strive to maintain a quiet, calm self-possession, devoid of all irritability and petulance. * * *

"Our object should be invariably to make men *wiser*, *happier*, and *better*."

He died on the 10th of November, 1862, in the fifty-ninth year of his age, of Pulmonary Consumption, which had begun its insidious ravages several years before, and was attended for the period of several months preceding its termination, with ulceration of the larynx. This unhappy complication not only destroyed his voice, but rendered deglutition painful and difficult, and deprived him in a great measure of nutriment. In the state of debility and inanition to which he was now reduced, his complaint made rapid progress. He was aware of its nature and of its certain result; and bore his sufferings—always great under such melancholy circumstances—with equanimity and resignation. Viewed in the light of eternity the things of time, which loom so largely on our mortal vision, shrank into their true littleness and insignificance; and no longer possessed any interest for him. In the latter period of his sickness, while yet able to move about his house, he had employed a portion of his leisure hours in translating the Historiæ Sacræ, probably intending the version as a memorial for his son, whom he had carefully instructed in the Latin language; but as the disease advanced he became incapable of such recreation. He now withdrew from the world and all its concerns. He set his house still more completely in order; his medical library he bequeathed to the College of Physicians, his surgical instruments he divided as memorials among several of his professional friends; and having directed how everything should be done after his death, and even made minute dispositions respecting his funeral, which was to be without show or parade, he calmly awaited "the inevitable hour." His wife and children, to whom he was most tenderly attached, he committed to the care of that gracious BEING, whose goodness and mercy had followed him all the days of his life; and thenceforth, his thoughts and affections were wholly fixed on things above. His sufferings were so great that he frequently expressed his desire to die; but this was always done in humble submission to the Divine will. He realized in all its fulness the truth, that

> "JESUS can make a dying bed
> As soft as downy pillows are;"

and when at last the time for his departure had arrived, he yielded up his spirit to GOD who gave it, in humble dependence on the merits of his REDEEMER, soothed by the retrospect of a well-spent life, "in the comfort of a reasonable, religious, and holy hope, in favour with GOD, and in perfect charity with the world."

One after another, Mr. President, those who began with us their voyage on the sea of life, are disappearing beneath its surface; and the survivor offers his commemorative tribute, chastened by the thought that he in turn

> "Shall shortly want the gen'rous tear he pays."

We cannot look around us in this Hall, without missing many a once familiar face, resting our eyes on seats whose former occupants have forever gone, and feeling, as in grief and loneliness of heart, we muse on the wreck which time has made of glowing hopes and lofty aims, that,

> "spent with these,
> The wine of life is on the lees."

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BIOGRAPHICAL NOTICE

OF

HENRY BOND, M. D.

READ BEFORE

THE COLLEGE OF PHYSICIANS OF PHILADELPHIA,

April 4, 1860.

BY

D. FRANCIS CONDIE, M.D.

PRINTED BY ORDER OF THE COLLEGE.

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BIOGRAPHICAL NOTICE.

IMMEDIATELY after the adoption of the resolution by which I was appointed by the college to prepare a biographical notice of its deceased fellow, Dr. HENRY BOND, I set about diligently to collect the materials requisite for the fulfilment of the task assigned me. My efforts have been attended, however, with only partial success. Of the portion of Dr. Bond's life preceding the period when he took up permanently his residence in Philadelphia, I have been unable to acquire any particulars beyond a few naked chronological dates. Not a single reminiscence has reached me in reference to his domestic training, his first associates, his favorite pursuits, nor to any other of the external circumstances amid which he was placed during his early youth—circumstances, which, if they do not stamp upon the mind and character of the individual their distinctive features, exercise, nevertheless, a powerful influence over both, and often give to them the particular bent they exhibit in after life. But, though unable to present any of the particulars of the early days of Dr. Bond, I may be permitted to point to his moral character, his unfeigned piety—the pure religious principles by which he professed to be actuated, and in accordance with which his intercourse and dealings with his fellow beings appeared invariably to be guided, and which imparted to his conversation and deportment, on all occasions, a peculiar dignity and truthfulness, as strong evidence of the careful nurture he had experienced in early life, and the favorable influences by which, from the cradle upwards, he had been continually surrounded.

The account I am about to present of such portions of the biography of our departed fellow as I am conversant with, will, necessarily, be little more than a simple enumeration of such of the movements of his life as have a more or less direct connection

with his daily routine of professional pursuits and engagements. Beyond these, indeed, the life of the quiet unambitious student and strictly professional man, such as was Dr. Bond, affords but little to interest or to instruct those without the circle of his intimates and immediate associates. The career of our departed fellow was one unvaried calm—broken by neither the love of adventure, nor by the aspirations and struggles which are prompted by a high-aiming and all-absorbing ambition—disturbed by neither dazzling achievements nor startling reverses; but simply a quiet succession of days succeeding nights spent almost exclusively in the retirement of his study, or in the privacy of his patients' sick chambers. Such a career furnishes, it must be evident, no very promising materials for the use of the biographer.

Dr. Henry Bond was born at Watertown, Massachusetts, on the 21st of March, 1790. His ancestors on his father's side came from Bury St. Edmunds, in the county of Suffolk, England. They were among the early immigrants who sought to secure for themselves and their descendants, upon the shores of the new world, the enjoyment of that freedom—personal, political, and religious—which they were denied at home. As early as 1636 they were settled at Watertown, in the then colony of Massachusetts; and they continued to reside there for several generations.

William Bond, the grandfather of the doctor, was, in common with the greater part of the descendants of the first settlers of New England, a determined whig in principles—prepared at any moment to risk everything, even life itself, rather than permit the slightest infringement of that liberty, in the pursuit of which his ancestors had left their homes and country, and willingly subjected themselves to the privations, toils, and dangers of a life amid the wilderness, and in the immediate neighborhood of treacherous and ruthless savages. As might be expected, therefore, William Bond was among the very earliest of those who had the boldness openly to embrace the cause of the American colonies in their contest for independence with the mother country. In 1775 we find him serving, in the 25th regiment of Massachusetts troops, as lieutenant colonel, under Col. Thomas Gardiner, who was mortally wounded at the battle of Bunker's Hill. On the death of the latter, he succeeded to the command of the regiment, which was then on duty at Prospect Hill, near Boston. In the spring of 1776, Colonel Bond was ordered to proceed, with his regiment, to the northern

frontier, to assist in the military operations against the Canadas. Whilst stationed at Mount Independence, on Lake Champlain, Col. Bond was attacked with dysentery, to which he fell a victim on the 31st of August, 1776. He left behind him several sons, residing at Watertown. Of these sons, Henry Manuel, a farmer by occupation, was the father of Dr. Bond. His mother was the eldest daughter of Captain Phineas Stearns, also of Watertown.

In June, 1790, when Dr. Bond was scarcely three months old, his father removed with his family to Livermore, in the then District of Maine, where he continued his agricultural pursuits, while, at the same time, he had an interest in certain mills in the neighborhood. He soon became there an active and influential citizen. He served as a deacon of the first church organized in the town, and was the second person who taught school in the place, which he did in the winter of 1794. He died on the 27th of March, 1796, in the thirty-fifth year of his age, leaving a widow and two children, a son and daughter. The widow subsequently married Zebedee Rose, of Livermore, by whom she had several children. She survived until August 13th, 1803.

Young Bond, in the spring of 1806, was sent to school at an academy, in Hebron, Maine, over which Albion K. Paris for some time presided. At this seminary he was prepared for admission as a pupil of Dartmouth College, into which he matriculated in the year 1809, he being then in the nineteenth year of his age. Four years subsequently (August, 1813) he obtained his Bachelor's degree. While in college, we are told, he exhibited a fondness for the exact sciences, and was esteemed an excellent mathematician. He devoted himself with success to various literary pursuits, and was especially interested in historical investigations.[1]

Of the particular circumstances which prompted young Bond to make choice of the profession of medicine as the pursuit of his future years I am uninformed; all that I know is that his medical pupilage was commenced, immediately after his graduation at college, under the direction of Professors Cyrus Perkins and Nathan Smith, of Hanover, New Hampshire, and diligently prosecuted until March, 1815; at which period he was appointed a tutor in Dartmouth College. This position he held until August, 1816, when he resigned. His professional education was completed in

[1] Memoir of Dr. Bond, by Horatio Gates Jones, A. M., Esq., Boston, 1860.

the medical department of Dartmouth College; by the faculty of which he was admitted to the degree of Doctor in Medicine, in the month of December, 1816.

Dr. Bond entered upon the practice of his profession, at Concord, New Hampshire, on the first day of January, 1817, he being then twenty-seven years of age. During his residence in Concord, he delivered three summer courses of popular lectures on chemistry; pursuing at the same time, with great application, his general literary studies.

"In 1818 he was appointed to deliver the oration before the New Hampshire Alpha of the Phi Beta Kappa Society. He selected as his theme, 'Traits of American Genius.' The manuscript of this oration, now lying before the writer" (we quote from the memoir of Mr. Jones), "shows that devotion to his profession had not produced a distaste for the paths of literature. Those who knew Dr. Bond only in his later days would be surprised at the tone and execution of the entire production."

From some cause, the nature of which is unknown to me, Dr. Bond very soon became dissatisfied with his position as a medical practitioner in Concord, and, in consequence, finally left the place. In the autumn of 1819 we find him in the city of Philadelphia, in attendance upon the lectures of the medical department of the University of Pennsylvania; and in the spring of the ensuing year he settled himself down as a permanent resident of our city, where he continued actively engaged in the practice of medicine during the remainder of his life.

In the memoir of Dr. Bond, by Horatio Gates Jones, Esq., it is stated that it was originally the intention of the doctor to have removed from Concord, N. H., to Augusta, Maine, where he had relations residing, and where an office had been actually engaged for him; but the several new and strong friendships he formed in Philadelphia, and the encouragement these held out to him, induced him to give the latter city his preference as a place of permanent abode.

In the month of December, 1819, Dr. Bond was admitted an honorary member of the Philadelphia Medical Society. In the proceedings of this society he took a deep and active interest from the period he was admitted to membership until its meetings were formally suspended a few years since: serving it with untiring zeal

and the utmost ability, in almost every capacity, from the humblest to the most exalted.

In the month of June of the same year he had been elected one of the Censors of the New Hampshire Medical Society, and orator for the year 1820. The duties of the latter appointment he did not, however, fulfil. In the same year (1819) we find his name enrolled among the honorary members of the Anatomical Society, instituted by Dr. A. Ramsey, in Surgeons' Square, Edinburgh.

Although somewhat reserved in his disposition and manners, especially towards strangers and in mixed companies, with but slight conversational powers, and ungifted with any of the arts adapted to secure the favor, by ministering to the weakness, the vanity, or the prejudices of those with whom he came in contact, Dr. Bond, nevertheless, by the dignity of his deportment, the true benevolence of his disposition, and the stern integrity exhibited in all his acts, was enabled in a short time to gather around him in Philadelphia a circle of warm friends, through whose exertions his success as a physician was zealously and successfully promoted; while his classical and scientific attainments won for him the esteem and admiration of his literary and professional contemporaries. He thus succeeded, very soon after his settlement in our city, in securing a practice highly respectable from the number and standing of his patients, and sufficiently remunerative to meet, as he often assured me, his most sanguine expectations; a result the more honorable to him from the fact of his being an unmarried man, and without the support of any powerful family influence. Dr. Bond, we may remark, remained a bachelor throughout life.

Following in the footsteps of nearly every physician who has attained in this community a character for professional skill, our deceased colleague availed himself, in the commencement of his career, of the admirable field which the practice of our several dispensaries furnishes for the acquisition of clinical experience and tact. Thus, in the year 1821, we find him fulfilling the somewhat arduous duties of prescribing physician to both the Philadelphia and Southern Dispensaries, to which, in 1822, he added those also of out-door physician to the General Board of Guardians of the Poor. The latter post he held for two years, during which period its duties were performed by him in a manner altogether satisfactory to all the parties interested.

In 1820 he was elected a member of the Philadelphia Academy

of Medicine, an association organized for the cultivation, by observation and experiment, of the several collateral branches of medical science. It included on its list of members some of the most talented, and at the same time most cautious and skilful, observers and experimenters among the physicians of our city. During a brief career of usefulness it originated an extensive course of experiments, chiefly with the view of elucidating certain of the mooted questions in physiology. Portions of this course only were completed. The able report of these, and of the general conclusion arrived at by the experimenters, may be referred to as evidence of the zeal, industry, and talents of the members of the Academy, and as an earnest of what might have been accomplished through its instrumentality had its existence been prolonged, and its efforts encouraged by the efficient co-operation and support of the medical men of our city generally.

It was a year or two later that an association was formed by several of the physicians of Philadelphia, under the name of the Philadelphia Medical Lyceum, having for its object the delivery, during a portion of the summer season, of a series of lectures, embracing a complete course of professional instruction, with appropriate illustrations and demonstrations, supplementary to the regular winter course of the Medical Faculty of the University of Pennsylvania. Of this association Dr. Bond was one of the original members; his colleagues were Drs. B. H. Coates, R. M. Huston, W. D. Brinckle, and the writer of the present notice. The branches assigned to Dr. Bond, in the course of instruction adopted by the Lyceum, were those of anatomy and surgery. These he had for some time previously taught at his office to private classes, which are said to have been very well attended. The Medical Lyceum continued its lectures for some three years, but without receiving that degree of encouragement which had been anticipated by its founders.

Although sufficiently well grounded in the subjects he undertook to teach—although anxious to communicate with clearness all necessary knowledge to his class, and having for the accomplishment of the task the required amount of reading and of personal skill—still, Dr. Bond was destitute of many of the qualifications which are essential to constitute a successful public teacher. Slow and unimpressive in manner, and deficient in language, his prelections and his demonstrations, although unexceptionable in appropriateness

and accuracy, were alike destitute of those attractions so necessary to fix the attention of his auditors and impress upon their minds the desired instruction.

In the year 1823 Dr. Bond became a member of the Kappa Lambda Society of Hippocrates, meeting in Philadelphia; and at the period when, its mission having been accomplished, it was dissolved, he was its Secretary. The organization, character, proceedings, and objects of the society received his entire approval. He sustained, with no little zeal, the important ethical object which was contemplated in its establishment, and in the accomplishment of which he was, in all respects, well adapted effectually to aid. The purity and dignity of his character, his conciliatory manners, and his entire freedom from even the suspicion of cliqueism, in any of its forms or phases, enabled him to subdue every feeling of pique, jealousy, or enmity that circumstances may have engendered in others, and to command the respect and confidence of all—converting even the most selfish of professional rivals into friends.

The meetings of the Kappa Lambda Society, on more than one occasion, were rendered particularly instructive, and the pages of its organ—the *North American Medical and Surgical Journal*—enriched by communications on various medical subjects from our departed Fellow.

In 1824 he delivered, by appointment, an address before the Society of the Sons of New England, which was published at the request of the Society. It is described as a very creditable production, its subject being a vindication of the people and the institutions of New England.

It was in the year 1825 that Dr. Bond was received as a Fellow of the College of Physicians. From an early period after his reception he became a frequent contributor to its scientific proceedings. Among his contributions, contained in the published *Transactions* of the College, will be found the histories of a number of important and suggestive cases of disease, and many valuable papers, in several of which modifications in surgical and obstetric instruments and treatment are proposed which have received the approval of the profession generally.

For a period of eleven years—from 1833 to 1843 inclusive—Dr. Bond served the College as its Secretary. The duties of the office were performed by him in a most faithful, able, and satisfactory manner, as the Fellows bear testimony in the formal resolution

adopted by them unanimously on the occasion of his resignation of the post, February 7, 1843.

In 1844 the College elected him one of its Censors, to which highly responsible and honorable station he was annually re-elected up to the period of his decease.

Dr. Bond was appointed, in 1833, by the Select and Common Councils of the City of Philadelphia, one of the members of the Board of Health; and in March, 1836, he was unanimously elected by the Board its President. His services in this body were most important. His suggestions, his decisions, and the measures carried out at his suggestion, in reference to the weighty questions—involving always the comfort and health, and often even the lives, of the entire community—which came constantly before the Board, demanding its prompt action, were all marked by sound judgment, and a familiarity with the true principles upon which all sanitary movements adapted to the circumstances and the wants of a large commercial community must be based to insure their being carried out successfully.

During the entire period that Dr. Bond presided over the meetings of the Board of Health, its proceedings were marked by a degree of dignity and cautious deliberation becoming the important nature of the interests involved in them. Few, perhaps, were better adapted for the position he held in the sanitary councils of our city. Industrious and skilful in the investigation of facts, slow and cautious in the formation of his decisions, he was equally determined in the enforcement of whatever measures he believed to be demanded to insure the safety of the community from the attack of disease, being turned aside neither by the claims of expediency on the one hand, nor on the other by the opposition founded on narrow prejudices or arising out of ridiculous fears engendered by ignorance and misconception.

It was the good fortune of Dr. Bond to have as his associates in the Board of Health while he remained a member, those who were both able and willing to aid him in the faithful and skilful administration of the sanitary laws and quarantine regulations of the city and port of Philadelphia.

About the year 1834 a very decided and well-directed movement was made by a number of the leading members of the medical profession of Philadelphia, unconnected with the schools, to elevate the standard of medical education, and to insure the competency

of those admitted to practise as physicians. In accordance with a system of instruction and graduation, adopted after great deliberation, the Philadelphia College of Medicine was organized. Its plan was nearly that of the London Medical University; having in contemplation the conferring of the degree of Doctor in Medicine upon such as should present themselves to its board of examiners, and pass a satisfactory examination in the various branches of medicine and its collateral sciences, after attendance upon a prescribed course of studies, embracing the lectures and demonstrations of such teachers as should be approved by the college. These teachers not being restricted to a single one upon each branch included in its curriculum, but admitting of a choice upon the part of the pupil among several on each branch, should several, as would undoubtedly be the case, be pronounced qualified by the college. The college received in 1835 a charter from the Legislature of the State. In this movement Dr. Bond took from the first a deep interest, and was especially active in furthering the efforts made to render it successful. He was named in the charter as one of the corporators of the college, and was elected its first treasurer.

It is not our intention on this occasion to examine into the causes which eventuated in the relinquishment of the scheme of improved medical teaching and licensing thus matured. What influence the election to professorships in popular medical schools of some of its leading and most strenuous supporters had in preventing the attempt being made to test its feasibility by actual practice, it is very difficult to say.

In 1840 and 1850 Dr. Bond was sent as one of the delegates from the College of Physicians to the decennial sessions held in those years by the convention for revising the United States Pharmacopœia; and in 1846 he was appointed by the Philadelphia Medical Society a delegate to the convention, by the action of which the organization was effected of the American Medical Association. To the latter body he was also on several occasions elected a delegate on the part of the College of Physicians and Philadelphia County Medical Society. It does not appear from the published transactions of the association, however, that he took at any time an active or very prominent part in its proceedings.

It was not solely with the medical associations of this and other cities that we find the name of Dr. Bond associated; it was not by his professional colleagues alone that a correct appreciation was

formed of his character and attainments; his moral and mental worth, his untiring industry, and accurate business habits. We find him enrolled, also, as a member of a large number of literary, scientific, and benevolent associations. Thus, he was a member, and for some time one of the board of managers of the Apprentices' Library Company of Philadelphia; a life member of the Franklin Institute; a member of the Society for Alleviating the Miseries of Public Prisons; a corresponding member of the New England Historical Society; a Fellow of the American Statistical Society, at Boston; a member of the Academy of Natural Sciences; a corresponding member of the National Institute, at Washington, and of the Northern Academy of Arts and Sciences, New Hampshire.

Dr. Bond was in person rather above the medium height, large limbed, with strongly-marked features, and of a grave, thoughtful, but, at the same time, benevolent cast of countenance, lighted up, occasionally, by a quiet smile. He was slow, deliberate, and methodical in all his movements. His conversational powers were very restricted; his want of fluency of speech was evident on all occasions, and on all subjects: this was the more remarkable in one who like him was a careful and, within the range of his favorite topics, a somewhat extensive reader, and a clear thinker.

During the earlier portion of his life he appears to have enjoyed robust and uninterrupted health. Several years, however, previously to his death symptoms developed themselves indicative of organic disease of the heart. These increased gradually in intensity, rendering active exercise inconvenient, and obliging him to restrict his professional engagements within very narrow limits, and finally to abandon them entirely.

On the 17th of August, 1858, he was seized with apoplexy and paralysis of the left side, whilst walking in the early part of the afternoon in Washington Square.

"A person who saw him at the moment," writes Dr. Bell, to whose kindness I am indebted for an account of the last illness of our deceased fellow, "represents him to have bounded from the ground and to have made a movement of semi-gyration. When visited at his house, half an hour afterwards, he was found to be still insensible but restless; he could swallow a little fluid, and exhibited some motility of his left lower limb, and before long of the arm and hand. In neither limb was this motility under the control of volition. These symptoms were more distinct in the

evening; by which time cupping the temples and behind the ears had been performed, and about six ounces of blood thus abstracted. Sinapisms to the legs and ice to the head had been previously applied. The bowels were well acted on the following day by pills of extract of colocynth and the citrate of magnesia.

"No regular notes of the case having been taken, it can only be told, in a general way, that in a few days the muscles of the affected side became partially obedient to the will, and speech began to return, although in a very imperfect manner. Consciousness had been restored within a few hours after the attack, and with it came a return of the intellectual faculties. The ability of the doctor to sit up was soon followed by that to walk from one room to another and then in the street, while supported on the arm of a friend and with the additional assistance of a cane. With the coming on of the cool weather he was able to extend his walks alone, and to ride in an omnibus or railroad car—a practice which he continued with considerable regularity, when not prevented by stress of weather.

"Dr. Bond had for a length of time labored under disease of the heart, marked by dyspnœa, and inability to indulge in active or accelerated movements, with a feeling of great oppression. His pulse was, for the most part, regular, and seldom weak.

"For some time after his paralytic attack the pulse was rather weak and soft; but, in proportion as he became able to move about and resume, to a certain extent, the routine exercises of the day, and to indulge his appetite, cardiac action was stronger; and the pulse, up to the time of his death, especially in the evenings, full, somewhat resisting, and rather frequent. He ate freely, and to an extent which he himself admitted, every now and then, to be beyond the limits of prudence. His medical friend and constant visitor (Dr. Bell) hinted at this, and laid some stress on the risk of repletion, without the compensating influence of an adequate amount of exercise."

Dr. Bond had persuaded himself that the leading curative indication in his case was to restore, as promptly as possible, strength to the system by a generous diet, tonics, and stimulants. Throughout life he had been noted for his habitual temperance, bordering almost, in respect to the use of alcoholic stimulants, upon entire abstinence; and yet so strong had his confidence in the latter, as one of the prominent means by which his health was to be restored, become, that it was found necessary, on occasions, pointedly to dis-

courage his persistence in their use, from a fear of the deleterious influence they were liable to exert upon his diseased heart and brain.

"The frame of mind of Dr. Bond, measured by his remarks in conversation, his letters, and written memoranda, his division of time, and his personal habits, was nearly the same after he had recovered from the shock of his attack as it had always been. No aberration of intellect or morbid sentiment was observable, although an occasional vacillation of purpose, in small matters, was occasionally to be noticed. His mind worked with more slowness, and evidently with greater effort, than usual. This was more evident in matters of memory, as, for example, in the difficulty under which he labored to get the desired word in conversing. In his best days he was, however, slow in speech, and had but a limited range of words. His utterance varied in distinctness during the time of his infirmities, according to the tone of his spirits, and the voluntary efforts made on the occasion. During the latter months of his life he felt very sensibly his condition—not evincing this so much in words, as by his being repeatedly moved to shedding of tears—the more so if reference or inquiry was made respecting his altered health in a tone of sympathy or commiseration.

"A frequent visitor would find him with a book or newspaper in hand, of the contents of which he would sometimes speak. The book he was most frequently seen engaged with was his Bible, or, occasionally, a volume of sermons. He took manifest pleasure in referring to his recently issued volumes, the *Watertown Memorials*, in answer to a question relating to any member of a family-branch recorded in their pages."

There was little or no premonition of the attack by which Dr. Bond was carried off, without, it would seem, a struggle or a pang. He had given his vote the day before at the polls of the annual municipal election, and on the evening preceding was in unusually good spirits—a common prelude, as is well known, to a sudden cerebral seizure, and its not unfrequent termination in death. After playing a game of backgammon with a friend, he remained in conversation with the family until after ten o'clock, when he retired to bed. He was found dead by his servant at seven o'clock on the morning of the fourth of May, 1859. He was lying on his face, within a step of his bed, and with a contused wound on his right eyebrow, which had bled a little, and was caused probably by his

striking against the lower part of a bookcase which was close to, and at right angles with, the bed. It is presumable that, in attempting to rise from bed, life was suddenly extinguished immediately after, if not at the moment of, his fall. The interval between his attack of apoplexy and the period of his sudden death was about nine months.

An examination of his body after death showed hypertrophy with valvular disease of the heart, and softening, to a considerable extent, of the brain.[1]

[1] The following account of the morbid appearances discovered on inspection of the body of Dr. Bond was communicated by Dr. R. La Roche to the Pathological Society of Philadelphia, at its session of May 11, 1859. It is copied from the Proceedings of the Society, as reported in the *North American Medico-Chirurgical Review* for July, 1859:—

"Occipital protuberance uncommonly prominent, with corresponding thickness of bone. The entire surface of the brain exhibited great venous congestion. The arachnoid membrane, especially towards the summit of the brain, was decidedly opaque, with effusion beneath of a serous fluid, and, in patches, of a semi-gelatinous matter. The vessels at the base of the brain were all more or less ossified. In cutting into the substance of the brain, the medullary matter became immediately covered with innumerable small spots of red blood. The choroid plexus was considerably congested. A large amount of serous effusion—probably two ounces—was contained in the lateral and other ventricles. The hippocampus major of the right side was unusually large, infiltrated with fluid, and decidedly softened. The velum interpositum was strongly injected with blood. The substance of the medullary portion of the anterior lobe of the right side of the cerebrum was considerably softened, and injected with a pus-like fluid, the softening extending as far back as the descending cornua. The cerebrum was large in size and firm in texture; the convolutions were uncommonly deep. The cerebellum was, compared with the cerebrum, uncommonly small in size; it was congested, but less so than the cerebrum.

"The cartilages of the ribs were ossified. Old adhesions of the left lung to the costal pleura were discovered. Considerable effusion into the cavity of the pericardium existed. The right auricle contained a very large amount of fluid blood. The heart was much above the medium size, and on its surface were large deposits of fatty matter. The coats of the aorta exhibited ossific deposits. The left ventricle was considerably hypertrophied and thickened; the right nearly natural. The semilunar and mitral valves were, especially at the base, thickened and ossified.

"The changes found in the heart confirmed fully the opinion which had long been expressed of the nature of the disease of that organ under which Dr. Bond labored so many years. Those found in the brain were sufficient to account for the attack of apoplexy and paralysis. In consequence of not finding in the latter organ any marks of recent disease of a kind calculated to explain the sudden death of the patient, and in view of the nature of the morbid changes in the heart, and of the unusual accumulation of blood found in the right auricle and

The contributions of Dr. Bond, of a professional character, were chiefly in the form of communications to the societies of which he was a member.

At a meeting of the Kappa Lambda Society, held February 25, 1829, he read a paper containing observations on the treatment of fractured patella, with the suggestion of an approved apparatus adapted to retain the fractured surfaces of the bone in contact until their union is effected. This apparatus commends itself to the favorable notice of the surgeon by the simplicity of its construction, its easy application, its slight liability to derangement, and its efficiency in the retention of the fractured portions of the patella in apposition, without interfering with the circulation of the limb.

The communication was published in the seventh volume of the *North American Medical and Surgical Journal.*

Among the communications presented by Dr. Bond to the College of Physicians, and printed in its *Transactions*, we find one read by him at the session of July 30, 1828, on the subject of foreign bodies in the œsophagus, with the best means for their removal. In this very able and instructive monograph he gives the description of an œsophagus-forceps invented by him, capable, when the head is thrown well backwards, of being introduced to any depth into the gullet, or even into the cavity of the stomach, without its inflicting injury upon the coats of either; and which, while it will readily seize hold of and firmly retain any small body—as a pin, needle, spicula of bone, etc.—with which it shall come in contact, will, at the same time, permit them to assume a position nearly parallel with its blades, so that, in the act of withdrawing the forceps, there is no possibility of the foreign body held in it wounding the lining membrane of the œsophagus.

In the paper here referred to, forms of hooks are suggested for the abstraction from the gullet of coins and other bodies which may have been accidentally swallowed and arrested along some portion of its tract.

In another communication, read at the session of the College held February 6, 1844, Dr. Bond describes a very ingenious forceps for the removal of the placenta when retained in cases of abortion;

surrounding vessels, several of those present at the autopsy [Drs. Bell, Wood, R. La Roche, Coates, Condie, C. P. La Roche, and Brinton] were inclined to look to that organ for the immediate cause of death."

an instrument confessedly much better adapted for the purpose than any of those previously in use.

In connection with the history of two cases of retroversion of the uterus, read before the College at its session of March 6, 1849, he describes a new instrument for the restoration and retention of the retroverted organ. It has been found, by those who have given it a fair trial, to be well adapted for the accomplishment of the desired object.

At its session of November 20, in the same year, he described to the College a modification of the ordinary midwifery-forceps, which he had devised in order to facilitate the application of the instrument, and to allow of its blades being locked in certain cases of labor, where this cannot be readily done when the forceps as usually constructed are made use of. The modification in question consists in an adjustment of the joint by which the two blades, when locked, admit of a rocking motion upon each other, within certain limits, which can be increased or diminished by means of a screw. This contrivance is a very ingenious one, and cannot fail, we think, to increase the usefulness of the instrument.

At a subsequent session—that of December 2, 1851—Dr. Bond presented a very elaborate memoir on the subject of fractures of the lower end of the radius, and on their management. In the memoir a splint is described for dressing the fractures referred to, which is intended to obviate the danger of a deformity which is very liable to occur when the usual plan is pursued of dressing the fracture with flat, straight splints extending beyond the points of the fingers. That the splint of Dr. Bond is constructed on correct principles is almost universally conceded, and, with but slight modifications, it has been adopted, we believe, by the entire profession of our country.

In the printed *Transactions* of the College is contained, also, a short but very neat biographical notice of Dr. John Ruan, a deceased Fellow, read by Dr. Bond, according to appointment, at the session of September 2, 1845.

We have thus briefly indicated some of the more important of the professional communications of Dr. Bond; others, equal perhaps in interest, and but little inferior in value, are recorded in the *Transactions* of the College, and in the contemporary medical journals. They are all of them sound, common sense productions,

having invariably a direct practical bearing. The particular tone of his mind was such as led him to look with indifference upon everything save the positive and the immediately useful. Mathematics, mechanics, statistics, and the exact sciences generally, were his favorite studies. On all occasions he was strenuous in the rejection of mere hypothetical and collateral reasoning, and in restricting himself mainly to propositions and deductions which, in his estimation, were based directly upon clearly established facts, and were consequently to be received as the expression of demonstrable truths. We can thus perceive why, without entirely neglecting any of the branches of medical science or practice—in all of which he was passably well grounded—that those which have most of a mechanical and positive character, such as surgery and obstetrics, were his favorite specialties, and to which the greater part of all his published writings have a more or less immediate relation.

We are unacquainted with any productions of Dr. Bond other than those of a strictly professional character, to which we have already referred, with the exception of a work in two octavo volumes, comprising in all some twelve hundred pages, published in Boston in the year 1856, entitled *Watertown Family Memorials*, with notes and illustrations. Of this we can speak only from the report of others. By such of our friends as have examined the work, and upon whose judgment of its merits we can place full reliance, it is said to be a very creditable production, exhibiting great and laborious research, sound judgment, and good taste. It presents a clear, unassuming narrative of local and family histories, which cannot be otherwise than of deep interest to the numerous descendants of those whose memorials it commemorates.

Among the unpublished manuscripts left by Dr. Bond is one exhibiting in tabular form the statistics of thirteen hundred and seven cases of labor superintended by himself. Every important fact connected with these cases is carefully noted: the age of the mother, whether it was her first, second, or third, etc., confinement; the presenting part of the fœtus, with its position in the pelvis; the period of the day when labor commenced, its duration, and the hour when it terminated; its character, and the result in respect to both child and mother. We refer to this table, as well on account of its real value as a reliable contribution to obstetrical statistics,

and one which we hope to see shortly placed within the reach of the medical public, as from its presenting an evidence of the doctor's methodical habits, his industry, and his fondness for the numerical method in the notation of facts.

In consequence of the extreme modesty and entire freedom from pretension with which the contributions made by Dr. Bond to the common fund of medical knowledge were announced by him, in connection with his ordinarily reserved manner and unobtrusive course of life, unmarked by either contention for favor or by the arduous struggle for distinction, he was perhaps less known to the profession generally, and held in its estimation a less elevated rank, than many with far inferior claims to celebrity and esteem. It was principally among those who had an opportunity to test his professional knowledge and skill, to become familiar with his classical and scientific attainments, and to experience the perfect sincerity and truthfulness of his entire character—his manly virtues and unfailing urbanity of deportment—that he was appreciated at his true value.

Those most intimate with him freely conceded to him their unlimited esteem; while his mental attainments and moral worth commanded the respect of all who knew him. He was never able, however, to attain to that general popularity which constitutes often a most important element of success in life, partly because of his apparent coldness of disposition, but mainly, we suspect, because of his entire freedom from a desire to court, by flattering demonstrations, the good opinion of those with whom he was brought in contact, or, for his own advantage, to conciliate their prejudices. He was invariably courteous in his demeanor, exhibiting always, and to all classes, that true politeness of manner which is equally removed from the vulgar rudeness affected by such as would aspire to the reputation of an honest bluntness, as from the servility and studied adulation of the mere man of the world.

The mind of Dr. Bond was characterized rather by depth, solidity, and caution, than by originality, brilliancy, or quickness of conception. He was unimaginative, even to a fault, and over-fastidious in his rejection of all other evidence than that which is strictly demonstrative. His opinions were formed slowly, after a close and, as he would fain believe, unbiased scrutiny into the nature and true bearing of the facts upon which they were based; but when

his opinions were once formed, it was with difficulty he could ever after be persuaded of their fallacy, or of the insufficiency of the foundation upon which they had been laboriously erected. He was, in consequence, tardy in the admission of novel doctrines in medicine, and of all newly announced discoveries in either of its departments. It was with difficulty, therefore, that he strove to keep even pace with the rapid improvements, additions, and extension by which, in his day, medical science and practice were so eminently distinguished. Though never, perhaps, strictly speaking, actually behind the existing state of knowledge in respect to his profession, he was seldom or ever in advance of it.

As a practitioner of the healing art he was skilful and eminently successful, and as an observer exact, cautious, and industrious. The very severity and mathematical precision of his mind, however, constituted serious impediments in all his attempts to communicate, from his own well replenished stores, knowledge to others—depriving him of the ability to pour forth, almost unconsciously, because of his own overfulness of observation and of thought, a constant stream of instruction, clear and attractive, from which all alike could profit.

Dr. Bond was an unpretending and devoted professor of religion. Brought up from early infancy in the bosom of the Presbyterian Church, he remained in full communion with it throughout life. While, however, he gave to the tenets inculcated by the creed of his forefathers his entire consent and constant personal support, and was ever ready to aid in every scheme adapted for their extension, he, at the same time, was no bigot; but, while he claimed for himself the right to enjoy unmolested his own religious views, and to worship God according to the dictates of his own conscience, he freely conceded the same right to others—"despising no man because of his religious belief, but extending freely to all whose lives exemplified the lessons of the Divine Teacher the ready hand of fellowship."

By his will, dated April 3d, 1858, Dr. Bond bequeathed to the Philadelphia College of Physicians such of his medical books of which there were not already copies in its library; while his miscellaneous books, including those on history, genealogy, and antiquity, not otherwise disposed of, he bequeathed to Dartmouth College. To the New England Historic Genealogical Society he

bequeathed his interleaved copies of the Watertown Family Memorials; his manuscript books and papers pertaining to town or church histories; those containing the records of births, deaths, and marriages in Woburn; and his files of letters relating to genealogy or antiquities; together with all the unbound copies of the Watertown Memorials.

"These manuscripts," Mr. Jones remarks,[1] "are exceedingly valuable, comprising, with his correspondence, his entire collection of materials, from which he prepared his great work on Watertown. The copies of the Memorials number at least one thousand volumes, and the society, to show their estimate of this legacy, have placed them in the hands of trustees, who design to invest the proceeds arising from the sale of the work in a fund, which, out of regard to their benefactor, is to be called 'The Bond Fund.'"

After devising the bulk of his estate, during life, to three of his near relatives in Philadelphia, he makes Dartmouth College his residuary legatee. The income of the property thus devised to the college to be appropriated to the increase of the college library, and to the payment annually of the sum of one hundred dollars to "any student of the name of Bond, a descendant of William Bond, Esq., and his wife Sarah (Bisco), who settled in Watertown, Massachusetts, as early as the year 1650, so long as he shall continue an undergraduate at said college."

In the final disposition of the bulk of his estate, Dr. Bond does not appear to have displayed the sound judgment and good common sense by which his conduct throughout life had, in other respects, been invariably characterized. As to the propriety of the bequest to Dartmouth not a single objection could be raised, had the property left by Dr. Bond been sufficient, after amply providing for his more immediate relatives, to render his intentions in its bestowal upon the college effective. The entire annual income of the few thousand dollars that will pass to the college, under the will of Dr. Bond, can afford but a trifling sum to meet the first of the objects contemplated, the increase, namely, of the college library; leaving nothing whatever to carry out the second object—the extending pecuniary assistance to persons of the name of Bond, descendants of the grandfather of the doctor, while they remain students of Dartmouth College.

[1] Memoir of Dr. Bond.

But, with even the supposed follies of a good man we are admonished to deal gently—especially should we do so with the few short-comings of one, who, like our deceased colleague, endeavored always to conform his life and conversation to what the prophet has shown to be good—"To do justly, love mercy, and walk humbly with his God."

LIBRARY OF THE
COLLEGE OF PHYSICIANS
OF PHILADELPHIA